JUL 28 1923

ESTABLISHED IN 1872

PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

Entered as Second-Class Matter June 30, 1879, at the New York Post Office, Under Act of Congress, March 3, 1879.

FIFTY-SECOND YEAR

Published every Thursday by the Lockwood Trade Journal Co., Inc., 10 East 39th St., New York, N. Y.

Vol. LXXVII. No. 4 NEW YORK AND CHICAGO, JULY 26, 1923

{ Per annum, $4.00
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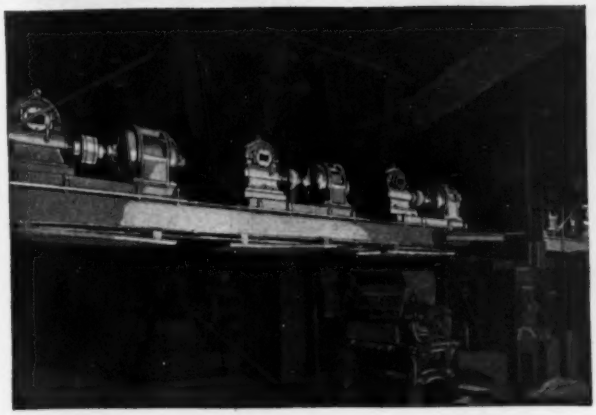

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CLEVELAND, OHIO

Cleveland WORM GEAR REDUCTION UNITS

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ESTABLISHED 1872

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LOCKWOOD TRADE JOURNAL CO., INC.

LESLIE R PALMER, PRESIDENT — GEO. S MACDONALD, VICE-PRESIDENT & TREAS. — F. K. HOPPIE, SECRETARY

10 EAST 39TH ST. N.Y. U. S. A.

CHICAGO, 431 S. Dearborn St. BOSTON, 127 Federal St.

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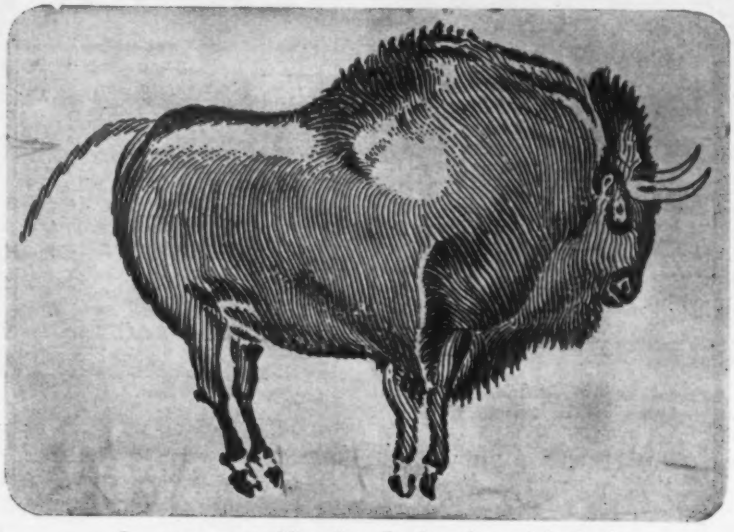

In a cave at Altamira, Spain, the original of this picture was painted thousands of years ago, probably before written history began.

The artist had no paper

Confucius is credited with the sentiment: "Give me one picture, and I will save a thousand words." A thousand words on the typewriter is a few minutes' work. In Chinese characters they call for a considerable physical effort.

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Erie, Pennsylvania

ESTABLISHED IN 1872

PAPER TRADE JOURNAL

Vol. LXXVII. No. 4 NEW YORK AND CHICAGO Thursday, July 26, 1923

RIVERSIDE PAPER CO. TO BUILD NEW MILL

Structure Will Be Completed in Six Months and It Will Take Additional Four Months to Install Machinery—Holyoke Strike Situation Unchanged with Sale Operatives Becoming Restive—No New Developments Reported in Proposed Pulpwood Embargo But Additional Assurance Comes from Washington That Administration Is Doing All It Can Through Diplomatic Channels.

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., July 24, 1923.—Construction of a new paper mill, near its present fiber mill, was started this week by the Riverside Fiber and Paper Company of Appleton. The building will be completed in about six months and another three or four months will be required for installing machinery. The present paper mill is to be abandoned and some of the machinery moved to the new structure. Cost of the building is about $150,000. The contract has been awarded to the C. R. Meyer & Sons Construction Company of Oshkosh, who have built many paper mills in Wisconsin in the last few years.

The new plant will be close enough to the fiber mill to permit pumping of pulp to the paper machines. Heretofore the mills have been so far apart that considerable freighting was necessary. The Riverside company also is operating a fiber mill at Little Rapids.

The new plant will have two machines. One machine will be moved from the old plant and a new machine, which was built some time ago at Beloit, will be installed as soon as the building is ready to receive it. The plant will have a capacity of about 50 tons a day. Both machines trim 116 inch sheets. The company will manufacture sulphite bond.

The beater room, 38 by 89 feet, will adjoin the fiber plant and will be five stories high. The machine room, 204 by 66 feet, will be in the center of the plant and the finishing room, 90 by 78 feet, one story high, will be at the other end. All machinery will be electrically driven by power furnished by a local utility company.

Construction of a new office building to take the place of the structure now in use will be started as soon as the paper mill is complete. New plans have been made, however, for the office and it is probable that it will not be ready for use until next year.

No Change in Holyoke Strike Situation

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., July 24, 1923.—There has been no change in the paper mill situation, the mills that were forced to shut down on account of the strike of the firemen still remaining closed with no attempt to operate them. The 5,000 or so operatives of the mills—the number is given from 4,000 to 5,000—are already getting restive and the facing of two months' solid unemployment does not appeal to them. Due emphasis is being placed among the men themselves on the fact that the Allied Paper Trades Council of which the firemen are a component part did not vote to strike.

It was therefore not at all surprising to those following the trend of affairs in Holyoke to learn that the council voted Sunday to make the first move in the attempt to settle the strike. A special meeting is planned for next week at which International President William Carey of the Brotherhood of Papermakers, President Arthur Huddell of the Steam Engineers, and Charles Kimball, organizer for the Millwrights, are to be asked to meet with loyal officials and discuss the situation. Later a conference with the manufacturers is planned. This proposed meeting has been half-heartedly denied but while unofficial high officials admitted its essential truth though they regretted that it had been announced.

It is also expected that International President Timothy Healey of New York might join the others. Mayor John F. Cronin has notified the State Board of Arbitration and Conciliation of the strike and they have sent a representative who is engaged in getting the facts in the situation.

The representative of the State Board and other officials find the way of compromise and arbitration difficult owing to the fact that the firemen are paid more here than in many places on a par with Holyoke. It is not exactly clear why Holyoke should lead the procession in the way of high wages the manufacturers point out. In a way the strike closely parallels the telephone girls' strike now on its last legs. The Steam Engineers have received a communication from their international president asking that their moral support be given but that they keep within the bounds of their agreement with the manufacturers.

All orders are being taken care of promptly by the manufacturers it was learned today. There is a large stock of paper ahead and no rush of orders. The annual shut down of four days takes place next week and the firemen profess to believe that the manufacturers will be eager to resume operations after that date.

No New Developments in Pulpwood Embargo

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., July 23, 1923.—There were no developments here during the past week in connection with the proposed pulpwood embargo by Canada further then additional assurances that the Administration is doing all that it can consistently by keeping the matter before Dominion officials through diplomatic channels.

Secretary of State Hughes, at the regular newspaper conference on Saturday stated that there was nothing new to add to what he had already announced, namely that he was informed that a commission would be appointed by Canada to look into the matter and that no action would be taken until after hearings had been held. Since receiving this word American officials have increased confidence that nothing will be done in the very immediate future in the way of placing an embargo.

Some advices received in Washington were to the effect that the embargo if placed, would be merely for the conservation of Canadian forests. This, however, in well informed circles, is not considered worth thinking about. Tariff experts insist that this is merely a protest on the part of the Canadians of our flexible tariff which they insist militates against them.

Insofar as can be learned neither the Department of Commerce nor the United States Tariff Commission have received any communications during the past week from Canada bearing on the matter of the embargo.

SEEKING MOTIVE BACK OF CANADIAN EMBARGO MOVE

United States Pulp and Paper Interests Speculating on Subject—Frank J. D. Barnjum Has Been Foremost Advocate of Embargo Action as One Means of Preserving Forests—Brompton Pulp & Paper Co. Declares Dividend to Cover Arrears—More Fires Threaten Forest Areas—Lumber Camps Make Unusual Demand for Labor and Wages Go Up Materially.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., July 24, 1923.—Judging by the news dispatches from the United States which are appearing in the local papers, there seems to be some apprehension existing in the minds of the pulp and paper interests in the United States regarding the motives behind the proposal for an embargo on the export of pulpwood from private lands. It would appear that Canadian pulp and paper manufacturers are considered to be behind the move. As a matter of fact, they have not made any move towards securing an embargo and the Canadian Pulp and Paper Association has not gone on record one way or the other. The action has been fostered largely by one leading conservationist, Frank J. D. Barnjum, who is deeply concerned over the depletion of the forests by fire and indiscriminate cutting, and who has urged the embargo as one of many measures necessary to prevent the forests from being destroyed. Mr. Barnjum is a recognized authority on the forests and has made many personal investigations which have led him to the belief that within five years Canada will be in sight of a pulpwood famine, unless drastic measures are taken. It may be noted also that the proposal has failed to have the slightest effect on market prices of the pulp and paper securities on the Montreal Exchange. As to the statement that the embargo would bring about an advance in news print prices in the United States, the Financial Post quotes a news print manufacturer to the effect that as the price of news print is made in New York and not in Montreal, an embargo on pulpwood would force Canadian publishers to pay at least $10 a ton more for news print.

One newspaper dispatch from New York states that American paper manufacturers are elated over the news from Washington that the Canadian Government has decided to postpone enforcement of this pulpwood embargo pending an investigation by a Royal Commission regarding the effect of such a measure. This dispatch shows that the action of the Canadian parliament is not thoroughly understood. Prior to the Bill being introduced into Parliament, it is understood that differences of a very acute nature arose between proponents of the scheme and some of the Cabinet and, therefore, instead of an Act prohibiting the export, the legislation brought in by the Government simply gave it authority to prohibit export "if and when found necessary."

This was modified in two ways, namely, by the understanding that an enquiry by a Royal Commission will be a condition precedent to any action and by the assurance that in the event of export being prohibited, pulpwood cut on settlers' lands will be exempt. The Rt. Hon. W. S. Fielding is now framing up the personnel of the Royal Commission which will enquire into the whole matter. This Commission will be appointed early in August. If any of the power now vested in the Government is invoked, there is much to suggest that the exercise of it will be sparing and cautious.

Brompton Co. Pays Dividend Arrears

Directors of the Brompton Pulp & Paper Co., at a meeting held at Sherbrooke, declared a dividend of four per cent payable August 15, to preferred shareholders of record, July 31 and a dividend of two per cent, payable August 31, to shareholders of record July 31. This action clears off the arrears on the issue and takes care of the current quarter. Yesterday's declarations make a total of 14 per cent declared on the preferred stock since April 19, when an initial declaration of two per cent, was made on account of arrears then amounting to 12 per cent. This development leaves the common stock, upon which five per cent was earned in 1922, in a much enhanced position from a market point of view. The balance sheet produced last February showed a marked improvement in working capital position, current assets exceeding current liabilities by nearly two million dollars as of December 31.

More Outbreaks of Fire

Reports obtained at the Department of Lands and Forests, Quebec, indicate a return of the dangerous conditions which prevailed a short time ago which brought about the closing of the forest areas and fears are entertained that unless a change is immediate, it may be necessary for the Government to again cancel permits. One of the heads of the department characterized the situation as very serious indeed. A very bad fire has broken out at La Lootre, in St. Maurice. An army of rangers is engaged in fighting the blaze. In the same district fires are reported as going up from Vandry to the top of Pineau River. Other outbreaks have occurred near Lake Epinette, Lake Flammand, Lake Soucy, River Moisiere, and the surrounding country. The blaze reported several days ago from Escalona is still raging despite the efforts of the fighters to quell it. In the Abitibi region many small fires are reported as having been started by settlers, and these, in addition to being put out, are being investigated.

Work In Lumber Camps Increases

Instead of falling down at this time of the year, as is customary, employment in the lumber camps of the province has increased to such an extent that provincial employment bureaus both in Quebec and in Montreal are unable to meet the requirements and forecasts for the fall are that wages will take a rise with the demand still increasing. In the district of Quebec in July and August generally, the number of men engaged in lumber camps, averaged three or four hundred. This season there are at present over 2,000 men who have been engaged through the Provincial Employment Bureau and the demand can no longer be met. This activity is without precedent and interpreted as indicating that the old system of operating at full swing only during the late fall, the winter and the early spring has been abandoned by the lumber people. As a result of the greatly increased demand, wages are going up and instead of being $22 to $32 per month, as was the case a few months ago, they reach from $40 to $50 and more per month.

Australia Making Paper

Reports reaching here from Australia state that the Australasian Paper and Pulp Co., Ltd., of Geelong, Vic., has recently turned out some excellent paper made from pulp consisting of 65 per cent of the products of New South Wales black-butt, 25 per cent imported pulp, and 10 per cent waste paper. On this paper was printed the annual report of the New South Wales Forestry Commission. The report states that at the Forest Products Laboratory in Perty, W. A., it has been found that black-butt, mountain gum, spotted gum, and coast ash all make good and strong papers, that from black-butt being the best. It yields 75 per cent more pulp per digester than the commonest foreign pulpwood. Exceptionally strong lightweight paper, which is suitable for writing, envelope, typing, book, magazine, and similar higher grade printings, can be made from black-butt. The Commission recommends that semi-commercial scale tests be made to produce pulp in ton lots for conversion into paper on full-sized paper machines, and adds that the above facts are interesting, in view of enquiries recently made in Sydney by a British-Swedish group on the question of erecting mills for the manufacture of paper from Australian wood pulp.

BLACK RIVER REGULATION PROMISES TO BE REALITY

Awarding of Contract by Conservation Commission for Removal of Timber from Area to be Flooded is First Step Taken in Project—Northern New York Utilities Inc. to Acquire 300 Foot Stretch of Oswegatchie River—Floyd L. Carlisle Takes $3,000,000 Life Insurance—World's Largest Paper Machine Being Installed for Algonquin Paper Corporation.

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., July 23, 1923.—The first definite and tangible step in the actual realization of river regulation in the Black river valley was taken Friday at Albany when the contract for the removal of the timber on land to be flooded by the expansion of the Stillwater reservoir was awarded. The contract for removing the brush and other waste materials, after the first operations are finished, was also awarded.

There were two bidders on the contracts to buy the soft wood, hard wood and pulp wood. The Conservation Commission had decided to award to the bidder whose price was highest on the total proposition. The wood went to Fred Pierce of Albany, the figure not being received here. As soon as his bond is accepted he will start removing the timber.

J. Victor Baron, president of the Board of the Black River Regulating District, with E. S. Cullings, secretary, were in Albany to receive bids on the contract to remove the debris. Only one bid was received.

In 1915 the Machold water storage bill was passed by the legislature. It has since been amended and the preliminary steps have been delayed from time to time until now. It was only last March that the Court of Appeals decided that the law was constitutional.

It is expected that the awarding of these contracts at this time means that it will be possible for the Board to build the dam 19 feet higher next summer and have the reservoir filled for use in 1925.

May Reject Bid for Clearing of Debris

The bid for the clearing of the debris from the 3,960 acres of land to be flooded by the enlargement of the Stillwater reservoir will, in all probability, be rejected when the Board of the Black River Regulating District meets some time within the next few days. This was intimated by E. S. Cullings, secretary, when he returned from Albany Saturday. The bid of the R. W. S. Corporation of New York City of $249 per acre, making the total $986,040, is regarded as beyond reason.

Mr. Cullings expressed it as his opinion that the uncertainty of labor for a three years' period was probably responsible for the high figure demanded and also for the absence of bids from Northern New York contractors. There is a possibility that the Board will exercise its right to handle the job without a contractor. It is thought, however, that the figure of the R. W. S. Corporation was based upon a misunderstanding of the exact requirements of the job.

It is believed by Secretary Cullings that the State Water Control Commission will promptly accept the bid of about $150,000 for the timber which was made by Fred Pierce. The figure is regarded as even above the prevailing price of stumpage in the Adirondacks.

The work of building the dam, cutting the timber and clearing the brush and stumps will be carried on simultaneously, it was said, by Mr. Cullings, and it should be completed by 1926.

Oswegatchie River Development

The entire stretch of the Oswegatchie river between Newton Falls and Edwards, entailing a head of about 300 feet, will be owned by the Northern New York Utilities, Inc., as soon as the Public Service Commission acts favorably upon a request to issue certain securities for the purchase of some properties. There are two unimportant heads at Stevens saw mill and a half of the Old Tannery power that are not acquired.

In its application just filed with the Commission the Utilities expresses a plan to purchase from the Power Corporation of New York the hydro electric plant near South Edwards known as the Oswegatchie Hydraulic Power Company property, with a 10-mile long transmission line to the Diana Paper Company plant at Harrisville. Certain undeveloped powers between South Edwards and the Cotton Rapids would also be acquired, and also undeveloped power at Fine.

"This transaction will enable us to make a development of 104 feet head at Rock Dam and also a 100 foot head by penstock from the present 37 foot head at South Edwards," said President John N. Carlisle.

A new dam will be built at Rock Dam. With the 83 foot head development of the Wilder property this will give a greater combined head than that at Brown's Falls, which is 265 feet. The Flat Rock development will be 65 feet.

It is only the consummation of further plans in the great expansion of hydraulic development in that section by the Northern New York Unilities, Inc.

Paper Man Insures for $3,000,000

Floyd L. Carlisle, president of the St. Regis Paper Company and of F. L. Carlisle & Co. of New York City, and also regarded as the leading mind in the Northern New York Utilities, Inc., and the Power Corporation of New York, has just had his life insured for $3,000,000. The insurance was handled by the Watertown Underwriters Corporation of which Joseph G. Norton is treasurer and general manager.

Mr. Norton said Monday that the examinations had been taken, the policies issued and delivered and the insurance placed in force. While the local corporation is agent for the Massachusetts Mutual Life Insurance Company, no one company can write the full amount taken. As a result the $3,000,000 was distributed by Mr. Norton among 22 other companies.

This makes Floyd L. Carlisle the second largest insured man in the country. Rodman Wanamaker stands first with insurance amounting to $4,500,000.

It was not possible to obtain information as to the distribution of this insurance among the concerns in which the holder is interested, but it is known that these companies are beneficiaries in various amounts and that the premiums are paid by the Mutual Life.

The services of Mr. Carlisle are regarded as a very valuable asset to the corporations in which he is the master mind, and his possible loss by death is thus indemnified.

Installing Largest Paper Machine

The Bagley & Sewall Co. of this city is now hastening the installation of the largest paper machine in the world in the plant of the Algonquin Paper Corporation at Ogdensburg. William C. Carnes, chief erector for the company, is in the Maple City supervising the work.

There will be 34 drier rolls in the machine and some of them weigh six tons. These are now being thrown into position. Some delay has been experienced in the delivery of this machine on account of lack of prompt delivery of materials.

Some of the officers of the paper company express serious sentiment concerning the effects of the proposed Canadian embargo on pulpwood. One of them is said to have remarked that had the proposed legislation been brought up before the plant had been started it might never have been built. The pulpwood which the Algonquin Paper Corporation will use will be imported by boat direct to the mill from Canada.

OPTIMISM COMES WITH END OF JULY IN PHILADELPHIA

Improvement in Conditions Since First of Month Taken as indication of Good Fall Business—President Considine of Paper House of Pennsylvania Returns from Interesting Trip to European Mills—Riegel Co. to Be Co-distributors of American Writing Paper Lines—Paper Consumers Visit Oxford Mills—Esparto Papers, Inc., to Open New Distribution Points.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., July 24, 1923.—July seemed to be closing with better conditions in the fine paper branch of the industry in this city than July began. Nothing even approaching a boom or even a reawakening of spring activities was evident during the week, but there was distinctly discernable greater confidence on the part of buyers than there had been with the result of slight increase both in the number of orders and in their average amount. Criticism still is made that patrons of the distributors are inclined to expect them to do what really is retail business but on a wholesale price basis but there is realization of the fact that a system which has been developed during several years back cannot be terminated over night and appreciation of the fact that progress toward improvement by restoration of the distributors to their legitimate function of wholesalers of paper is steadily, though very slowly, being made.

Wrapping Paper Conditions Quiet

Improvement in the wrapping paper division of the industry was not as noticeable as in the fine or printing paper division. Orders from the textile industry, one of the leading in this city, almost has fallen off to the point of nothingness. Salesmen visiting this trade complain that they cannot interest buyers even at a price; that they are not in the market for goods even when the invitation of placing business at considerable discount from regular prices is extended. The market in other fields of manufacturing industries, while considerably better than in the textile, is still in a time-marking condition with the single exception of the building trades. The requirements of the latter for roofing, sheathing, and deadening papers is extensive but despite increased cost of raw materials in these lines it is not possible to secure higher prices. Buyers express themselves as convinced that prices must declines and as being willing to place business at present price levels only because of the imperative need of goods to rush to completion building developments before the season closes.

Dullness In Stock Market

In the stock market both for rags and old papers there is dullness and dragginess but more, however, of transient mid-summer than of a permanent character. Mills using mixed and commons are willing to take in what is being offered if the price is low enough, but are not displaying any eagerness at all in this market. A few of the Western mills are placing business at higher prices than local mills are willing to give, but only for small quantities of stock. Supplies of these grades of cheap papers as well as of the better grades of books and writings, are in very limited amounts and the small mill demand is large enough to prevent accumulation.

Considine Reports On European Affairs

When President Norbert A. Considine of the Paper House of Pennsylvania returned last week from an extensive trip to Europe partly on pleasure but principally on business which brought him into the paper mills of England, Sweden and Finland, he returned with several new connections but as well with unplaced orders. The latter was due to the fact that Finnish paper manufacturers had, in his opinion, most inflated ideas of the prices they should receive from American distributors. Ruling quotations in Finland, at the time he was there a month back, were actually higher for news print than the price of the American product. Since his return, however, he has received cables offering goods at considerable reduction from the prices made to him in person at the mills. He attributed the high prices prevailing at the time of his visit to the brief spurt in the English demand for Finnish and Swedish papers, both news print and Kraft and the decline in quotation subsequently made to the decline of the English demands. Said he: "On my trip I saw many things of interest to the paper man, particularly in the wonderful jubilee exposition in Gothenburg, Sweden. In connection with an exhibition of the Swedish typographical industries there were shown samples of all the lines of papers made by all the Swedish mills. The exhibit of hand made papers was particularly interesting. I gave some study to an exhibition of all the units of a paper making plant, but these while faithfully produced were not in actual operation like the miniature shown recently in New York.

Paper Trade Journal Their Authority

"In Finland, I was far away from the centers of population visiting some of the mills, but I was never really out of touch with America. In the first place, wherever I went I found copies of the PAPER TRADE JOURNAL. Whenever American conditions were touched on, the Finnish paper makers would point out a page or a paragraph in the PAPER TRADE JOURNAL as the highest and final authority. In the Kymmene Mill I was introduced to sales manager Johnson of the Pusey & Jones Company, Wilmington, N. J.., negotiating for the installation of American made paper making machinery there and with whom I was well acquainted through my brother and father who had come closely into business contact with him. Moreover, one of the officials of the Kymmene Mills, Mr. Ramsey, a Finn, descended from Scotch forbears who had gone into Finland many generations ago, expressed his intense desire to see, on a trip to this country he is about to make, the immense new book paper machine in the plant of the P. H. Glatfelter Company in Pennsylvania as described in the PAPER TRADE JOURNAL. Mrs. Considine was with me at the time and you can imagine how pleasant it was to hear this. Mr. Ramsey did not know at the time he spoke that it is Mrs. Considine's father, M. J. Kelly, who is general manager of that very Glatfelter Mill and in charge of that machine. Representatives of Hans Lagerloef of New York also were in Sweden and Finland at the time I was there although I did not meet them in person. I also enjoyed a visit to a Scotch Paper Mill where the esparto gr s fiber is used. Of course it is cooked and handled in a much d erent way than is chipped or ground wood in the other mills visited. The resultion paper, both bookn and writing, is a beautiful sheet with many splendid qualities. One of the desirable ones f r a printing paper is the absence of grain or of curl. It is used exclusively on the continent but, perhaps, because of price is not yet so extensively used in this country. I believe, however, that field her ery promising one."

Change in Distribution Field

Formal announcement shortly is to be made of one of the most important changes in the distribution field which recently has taken place here. This lies in the fact that the American Writing Paper Company has decided to make Riegel & Company co-distributors with the Garrett-Buchanan Company for the many and varied lines of its products. The American Writing Paper account is regarded as one of the most important in the field and there comes to the trade with much sense of surprise news that a co-distributor is to be appointed. It is true that until the taking over of the warehouse and stock of the Whitaker Paper Company by the Garrett-Buchanan Company a few months ago there was a dual agency of it and the Garrett-Buchanan Company for the American line, but when the Whitaker Company was absorbed it was thought that the

(*Continued on page* 28)

President
SIR FREDERICK BECKER

Manager of Sales
FRANK E. DUNAWAY

BECKER WOODPULP CO.

OF

AMERICA, INC.

501 FIFTH AVENUE, NEW YORK

DOMESTIC—CANADIAN—EUROPEAN

PULPS

OF EVERY KIND AND QUALITY

SOLE SELLING REPRESENTATIVES FOR

BAY SULPHITE CO.,
ST. LAWRENCE PULP CO.,
} STRONG AND EASY BLEACHING SULPHITE

CHICOUTIMI PULP CO.,
CLYDE PULP CO.,
SISSIBOO PULP CO.,
} GROUND WOOD

OPTIMISM COMES WITH END OF JULY IN PHILADELPHIA

(*Continued from page* 26)

vast storage facilities and sales organization of the Garrett-Buchanan Company would maintain it as sole distributor. President Arthur B. Sherrill of Riegel & Company expressed his pleasure at receiving so valuable an account as that of the American Company and Vice-President Morgan H. Thomas of the Garrett-Buchanan Company said that when the subject of a dual distributing agency for the American Company in this city was taken up he had given his heartiest approval to the suggestion that Riegel & Co. be appointed. Formal notification to the trade is to be made soon.

Paper Consumers Visit Oxford Mills

The Atlantic Paper Company of this city and the Oxford Paper Company were hosts during the week to a party of Philadelphia paper consumers, entertaining them from Sunday until Friday with a visit to the mill in Rumford, Maine, and a day or two in the great outdoors fishing and camping. The Philadelphians were conducted by President Thomas J. Hare and salesman Bentley of the Atlantic Company, by way of the Pennsylvania Railroad and the State of Maine special to Rumford. After a day in the mills a trip was made to the Upper Dam for salmon and trout fishing, prizes being set up by the fishermen and doubled by the mill folks for the guide catching the largest fish. In true Indian trapper fashion the fish were then prepared in a forest campfire. S. H. Burbank of the S. H. Burbank Company, Inc., and Lafayette Cates and Lawrence Schuster of the *Farm Journal Company* distinguished themselves in the fishing.

Esparto Papers Inc. Expand

Plans for the opening of a series of distribution points for its products are now in process of formation by the Esparto Papers, Inc., with headquarters in the Franklin Trust Building, and will be put into effect in time for the Fall resumption of trade activities. Esparto Papers, Inc. is a recently organized company, whose head is Frederick Hastings, formerly associated with the Dill & Collins Co., and conducts a business of importing a line of bonds, books, writings, drawings and mimeograph papers and similar lines made of esparto grass. Esparto grass papers, which the firm handles, are made in the mills of England and Scotland from the reed grass imported from Africa, is one of the leading sources of pulp production in the United Kingdom. It is the purpose of the company to open up distribution branches in Baltimore, Boston, Chicago and Rochester, through the medium of reputable paper houses.

Glen Mills to Resume Operations

Although the doors of the century old mills of the Glen Mills Paper Company which recently were in operation as the plant of the Adesta Paper Company, have been closed since the suspension of the business of the latter, it is planned to again resume manufacture by the former company if the mills are not disposed of by sales. Previous to the occupancy of the mill by the Adesta Company the Glen Mills, for more than a century were devoted to the production of Parchment papers. Just a year or so before the Adesta Company took over the operation of the plant for its line of Krafts, the Glen Mills Company remodeled the old building and installed an entirely new machine equipment so that it is modern in all details and ready for resumption as soon as some definite plans are made as to its disposition. Should operation be resumed by the old company a line of water-marked parchment papers will be made. Local headquarters in the Drexel Building are still maintained.

Hygenic Paper Service Co. Moves

Removal of the Hygenic Paper Service Company from its old location at 201 Market street to new and larger quarters in the building at 334 N. 2nd street have been completed and the firm is now carrying an increased stock of the new full line of sanitary products. The firm specializes in paper napkins, towels, cups, butter chips and paper doilies, featuring requisites for hospitals, restaurants and similar institutions where a single use is made of the article and it is then destroyed. It is quartered on the first floor where are combined the sales rooms and warehouse. In the stock are included many mill representations. There is also carried in stock a line of wax and parchment papers. The proprietor, Charles Moskowitz, has been in the business for over four years.

New Office for Whitaker Co.

The Whitaker Paper Company, Philadelphia Branch, which formerly was located in the building at 126 N. 5th street is now occupying offices in the Bourse Building where is conducted a sales headquarters with William R. Tustin in charge. The former warehouses and stock were taken over by the Garrett-Buchanan Company and the local manager Halsey E. Remsen transferred to the Baltimore branch. Previous to joining the Whitaker forces Mr. Tustin was associated with Edward Grossman and the old firm of Megargee-Hare which was consolidated with the Garrett-Buchanan Company about four years ago.

Philadelphia News Items

Thieves who entered the Philadelphia Paper Manufacturing Company's mill at Nixon and Leverington streets, rifled the lockers of several of the employees and stole a watch valued at $35 and clothing belonging to Armand Spinelli, the watchman; $50 and clothing from Harry Gordon's locker.

Protesting against the action of the Board of Health in closing the plant of the Westmoreland Chemical and Color Company, manufacturers of paper dies, the firm has filed a petition in Court for relief from the Board's decision. On May 25 the Board of Health ordered the plant closed as a nuisance because of the obnoxious odors emanating from its operation and the fumes from the stacks which the neighbors alleged harmed their throats, eyes and noses. The company maintains that the smokes from the adjacent railroad yards are the cause of the trouble and that its plant does not emit more than four-tenths of one per cent of sulphuric acid gas from the 175-foot stack.

The condition of Mrs. Mathilda Hoffner of Noble, mother of Charles Hoffner, salesman with the Jessup & Moore Co., who was injured a few days ago when her car skidded upon loss of its control while she was driving in York Road, was reported at Abington Memorial Hospital as being improved. She sought to keep her condition secret from her son who was scheduled to play in the professional golf championship games at Inwood, L. I., in order to not interfere with his playing.

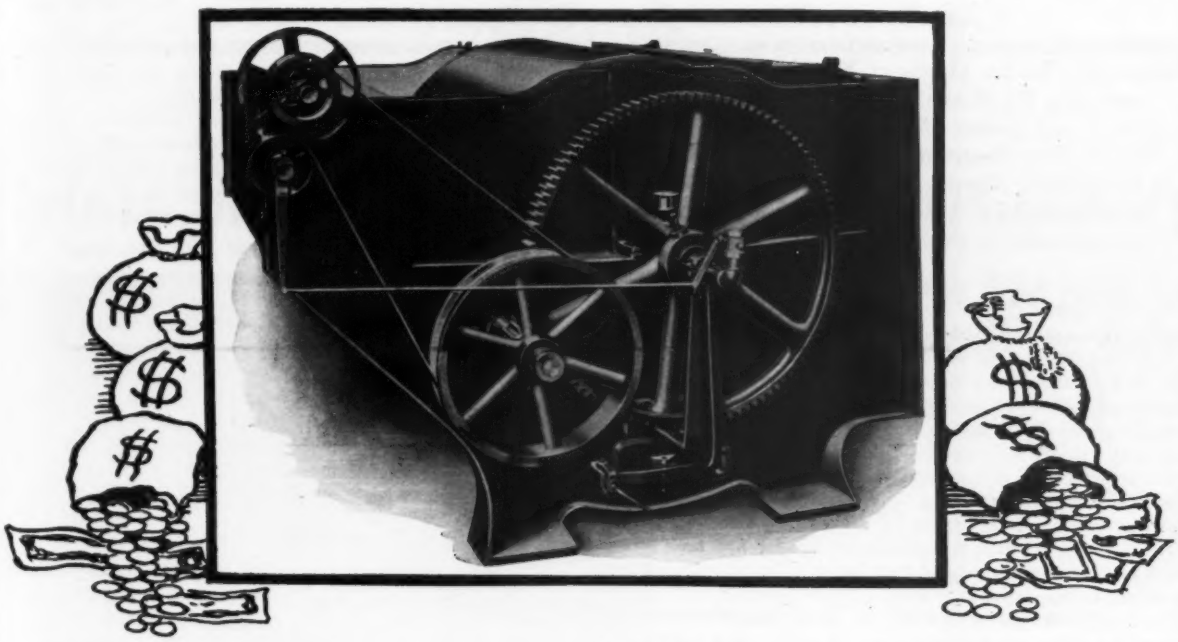
Each employee in the plant of the Hinde & Dauche Co., at Gloucester, N. J., has been given a life insurance policy by the company.

Nested holly boxes for the stationery trade are being featured in the line of specialties carried by the Mathers Paper Company, Arch and Front streets as a new issue this season. The boxes are packed in nests of five with 100 nests to the carton and are being shown by the manager of the Department, Charles Mitchell.

Frederick L. Kempff, the newly appointed sales manager of the Philadelphia Branch of the Marcus Ward Company, has just returned to headquarters from a trip through the western part of the state, where he has been featuring the holiday line of papeteries and the new fall standard stock.

Knoxville Paper Box Co. Increases Stock

KNOXVILLE, Tenn., July 23, 1923.—Amendment to the charter of Knoxville Paper Box company, increasing the corporation's capital stock from $25,000 to $50,000, was filed last week with the clerk of the Knox county court. Petitioners are A. L. Hickman, J. H. Hickman, L. E. Robinson, F. C. Howard and T. F. Taucher.



How much can a BIRD SAVE-ALL Save in Dollars and Cents?

The Waste Committee of the Technical Association estimates that a save-all reclaiming 1000 pounds of stock a day will make an annual net saving, less all expenses, of **$2426.**

In this estimate the recovered stock is valued at $25 per ton. Most stock is worth more than this. Also most save-alls recover more than 1000 pounds per day.

The net annual saving when 2000 pounds per day are recovered, using again a figure of $25 per ton, is estimated at **$6176.**

Hardly a save-all installation is made that doesn't pay for itself in a year. Many pay for themselves in a few months and keep up this rate of return.

Have you satisfactory save-all equipment? If not, may we send you a catalog?

BIRD MACHINE COMPANY
SOUTH WALPOLE MASSACHUSETTS

Western Representative—T. H. Savery, Jr.
1718 Republic Bldg., Chicago, Ill.

Canadian Builders of Bird Machinery
Canadian Ingersoll-Rand Co., Ltd.
260 St. James Street, Montreal, Canada

The BIRD SAVE-ALL

5472

ONTARIO EXPORTS TO U. S. FAR IN EXCESS OF 1922

Volume for First Six Months of Year Nearly Double Corresponding Six Months of Last Year—Pulpwood, Pulp, Paper and Lumber Represented More Than Half the Total—Data Regarding Former Provincial Embargoes—Frank Keefer Appointed Under Secretary to Department of Lands and Forests—Different Provinces to Have Representation on Pulpwood Commission.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, July 23, 1923.—There is nothing of special interest in the general market situation but a fair amount of business is reported by some wholesalers. Others state they are doing very little at the present time but are strongly in hopes that the demand will pick up materially next month. In the meantime, staffs are holidaying. The Canadian National Exhibition opens the latter end of next month in Toronto and this attracts more than a million visitors every year. It is a great buying time for out-of-town customers and, with their coming, it is expected there will be considerable turn-over in supplying fall demands.

There is a good call at the present juncture for S C book papers but other lines are not moving very freely. Cheap grades of mill blanks are having active requisition. The demand for kraft is only fair and wrapping papers generally are quiet. Manufacturing stationers and others are running light. In the rag and paper stock arena there has been a reduction in quotations of white blank news and new manila cuttings. All grades of rags are in moderate demand considering the season of the year and prices are holding fairly well. Thirds and blues in particular are having a lively call. There are no changes in values. The printing business is very quiet and this naturally keeps down the consumption of paper. The pulp market is rather slow but is expected to pick up again in the near future.

According to trade returns from North Bay, Ont., the exports of merchandise to the United States during the first six months of 1923 are almost double the same kind of products exported during the corresponding months of 1922. Pulpwood, pulp, paper, lumber and lath represent over half the total exports, the value of the commodities in this class being $9,234,718.

The Record of Provincial Embargoes

It is interesting to note that the proposed move for the prohibition of pulp wood export from free hold lands in Canada, which is being considered by the federal government, recalls the fact that the embargo on the export of pulpwood from Crown, or publicly owned, lands came into force in Ontario in 1900. An embargo on the export of pine logs, which used to be rafted in large quantities and towed across the Great Lakes to Michigan mills, went into effect in Ontario in 1897. There is now an agitation in some quarters to have an embargo placed on the export of hard woods from the north, but it is not likely the matter will come up for discussion or consideration in the Ontario Legislature until the next session of that body and perhaps not that soon.

Giving Attention to Needs of the North

It is announced that Frank Keefer, who was recently elected a member of the provincial government for Port Arthur, has been appointed by Premier Ferguson as Under Secretary to the Department of Lands and Forests and legislation will be passed at the next session creating the post. The move has been made to give the lumber, pulpwood and other interests in Northern Ontario adequate representation. Mr. Keefer will open an office in Port Arthur and will receive any delegations or hear any matters which formerly necessitated the parties traveling all the way to Toronto to present.

Pulpwood Commission Inquiry

In connection with the Royal Commission, which will be appointed by the federal government to inquire into the whole matter of an embargo on pulpwood from private lands, it is expected that representation will be secured from the different provinces. It is reported that one commissioner will come from Ontario, one from Quebec and another from the Maritime provinces. Word has reached Toronto that R. W. McLellan, of Fredericton, N. B., who is well known in pulpwood and lumber circles, is being supported by eastern interests in the matter of an appointment for that great district. In Ontario several names are being mentioned.

Paper Company's Work in Fire Prevention

When so much of the wealth of the country is depleted annually through forest fires it is gratifying to note that the Abitibi Power and Paper Company, Limited, of Iroquois Falls, has had an efficient fire service in operation all spring and summer. The company's woodmen supplement the Government's fire service throughout the limits, and especially along the railroad tracks, where the danger of fire is greatest. The company's fire rangers, in fact, are under strict written orders to take their instructions from the Government rangers in case a fire breaks out and supply them with all available equipment. In such an event the company's rangers, the pumps, tanks and all other appliances would be automatically under the orders of the Government rangers in charge.

Notes and Jottings of the Industry

W. P. Bennett, president of the Rudd Paper Box Company, Toronto, has returned from an extended trip to California and the Canadian West. He reports that prospects in the paper box line are very good throughout the western provinces.

R. I. Finlay, president of the United Paper Mills, Toronto, has been spending his holidays at his summer home at Oakville.

H. G. French, secretary-treasurer of the Allen Paper Company, Toronto, was elected Grand Senior Warden of the Masonic Grand Lodge of Canada in Ontario, which met in Toronto during the past week. Mr. French has long been prominent in Masonic circles.

George Allen, of Buntin, Reid Company, Limited, Toronto, has returned from a successful fishing expedition in Northern Ontario and reports a pleasant time.

H. J. Shanley, of the Chemical Paper Manufacturing Company, Holyoke, Mass., was in Toronto lately calling upon the members of the trade.

S. F. Duncan, treasurer of the Provincial Paper Mills, Limited, Toronto, accompanied the remains of his father-in-law, Rev. Peter Moer, to South Bend, Indiana, for interment last week. Rev. Mr. Moer died in Toronto.

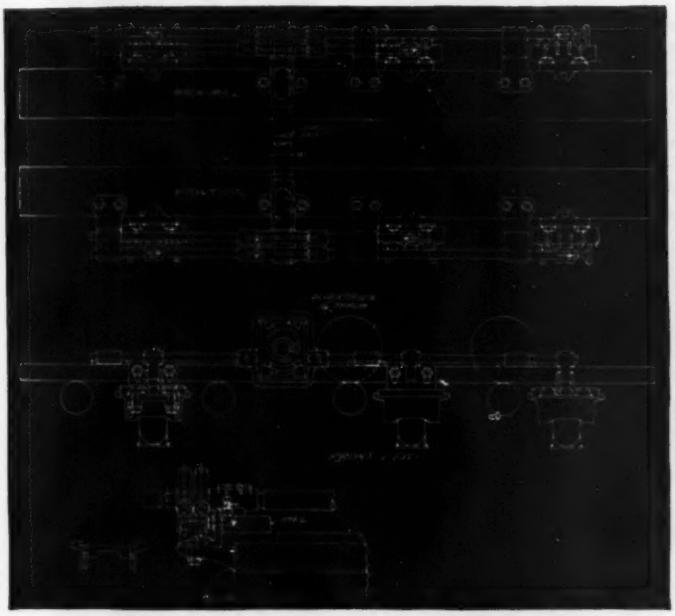
A. P. Costigane, Safety Engineer of the Ontario Pulp and Paper Makers' Safety Association, last week paid a visit of inspection to mills in Kenora, Fort William, Port Arthur, Fort Frances and other points in Northern and Northwestern Ontario. He reports a number of improvements in the plants visited tended toward the reduction of accidents and that accident prevention work is receiving the support of both management and employes to a gratifying extent.

Walter Crainston, of Stokes & Smith, Philadelphia, manufacturers of wrapping machines, was in Toronto recently calling upon the trade.

R. J. Flynn, who for many years has been manager of Buntin, Reid Company, wholesale paper dealers, Toronto, and for the last three years has been Mayor of Weston, a prosperous suburban town near Toronto, has been asked to accept the position of clerk, treasurer and assessment commissioner of the town. The offer came entirely unsolicited to Mr. Flynn, who is considering it.

Forest fires, which broke out recently in the vicinity of Sault Ste. Marie, Ont., have been subdued. Some complaints are heard from the North to the effect that rumors of the damage done by fires recently have been greatly exaggerated.

Beloit Suction Box Oscillator (Patented)



The Modern Method for Prolonging Wire Life

THIS is a device that ordinarily can be attached to the wire suction boxes on your present machines to keep them in constant motion, thus keeping the covers very smooth all the time. The benefits thus gained insure a decided saving in wire life as the wire travels over a glassy, smooth surface, cutting down the friction load and consequently the wear. Another benefit—owing to the fact that there are no grooves in the covers, the edges of the wire are not worn as rapidly. Also there are no grooves to guide the wire to one side. This eliminates a large proportion of the work that the wire guide has to perform and naturally gives longer life to the guide. A further benefit is the elimination, to a large extent, of the mill-wright work in planing up the box covers.

THE cross shaft for working this attachment is driven from the couch in-shaft and this works eccentrics which impart an oscillation to the suction boxes under the wire. If there are two boxes on the wire they will move in opposite directions to eliminate any tendency of steering the wire one way or the other. As the front end of one box moves forward with the wire, the back end moves in the opposite direction. This oscillation prevents the wire from cutting into the box covers and keeps the covers absolutely smooth at all times. Mills using this attachment claim that the wire guide has scarcely any work to do and remains in one position day after day.

While it is impossible to give final statistics showing what the oscillator will do, in prolonging the life of the wire, reports from various mills confirm the fact that their wires are lasting 40% longer than formerly. The present-day high cost of fourdrinier wires makes this oscillator attachment a decided economy that soon pays for itself.

Please bear in mind that this oscillator attachment can be placed on your present machines and that it is not necessary to order a new machine in order to secure the advantages of this modern improvement.

Simply give us the number of boxes on your machine and a sketch showing their location with respect to the fourdrinier rails and we will quote you a price for making the change.

Beloit Iron Works **Beloit, Wis., U. S. A.**

CHICAGO MARKET SETTLES DOWN TO SUMMER SCHEDULE

Salesmen Taking Advantage of the Quiet to Go on Vacations—Chicago Paper Co. Installs New Service Department to Assist Buyers—Two Salesmen Win Trip to Warren Paper Co. Mills—Paper Stocks Selling at Close to Lowest Levels of the Year—Slight Increase in Activity Noticed in Old Paper Stock Market—Milwaukee Paper Men Entertained—Paper Issues at Low Level.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, July 24, 1923.—Mid-summer finds the Chicago market in anything but a lively condition. "Quiet" describes the situation better than any other word. Orders, for the most part, are conspicuous by their absence and the much sought after signature "on the dotted line" is just not being put there. Buyers are making themselves scarce and salesmen find it difficult to locate them, and still more laborious to pry loose the desired order.

Chicago houses attribute the slump to the usual vacation season. Practically all lines are just as hard hit, including book papers, catalog and advertising papers, bonds, tissues and wrappings. Summer is the period when nearly every branch of industry has to combat a slackening demand brought on by vacations and buyers of paper stocks from the manufacturer and wholesale merchant are merely reflecting the conditions which they in turn meet in their respective markets. The printing houses are likewise slowing up in their demand. Even those depending upon publication printing as the bulk of their business are not taking the quantities they usually do because many magazines curtail their editorial space giving as their reason that business men do not have time during the summer to read as much literature as in other seasons.

P. A. Van Vlack Describes Market

P. A. Van Vlack, president of the Moser Paper Company, described the market in a few words as follows: "There is very little doing at the present time. No line has a stronger demand than any other. Our sales staff, that is, about 33⅓ per cent of it, is trying to scour up some business. The other 66⅔ per cent is either away on vacations or out playing golf. We expect things to open up strong again in the fall."

Everything Slow, According to H. M. Gimlin

The slackness of the Chicago market is verified by Horace M. Gimlin, vice president of the Dwight Brothers Paper Company. He says: "Every line of paper stock we handle is slow. The printing houses have come down to a summer schedule and we cannot look for anything but a slight demand from this source."

Slump Good for Industry Says Gillett

Claiming that the summer slump is a good thing for the paper industry, W. N. Gillett, vice president of the Chicago Paper Company, gave his views on the market in these words: "The paper business was good for the first six months of the year but we expect that July and August will be quiet. However, we can see several reasons why the fall will see a resumption of good volume. All conditions point to it. The mills were shut down for the first week in July and this gave them the opportunity to make alterations and repairs so that no delays might occur on this account later on. Mills are running about 75 per cent of normal.

"This little slump is a very good thing for the paper industry, I believe. Things were going too fast and, if they had kept on at the pace for very long, there would have been a serious reaction. This would have been bad for all of us. But with things dropping off for a short time the mills have occasion to catch up on orders and, when business opens up again in the fall, everybody will be in a better position to enjoy it.

Finds Things Booming in the West

"I have just returned from an extensive trip through the west and south in the interests of 'Foldwell' enamel stock which we manufacture and market through distributors. I went down the west coast and across the south to New Orleans. Everybody is optimistic out there and a significant fact is that they are all enoying a brisk trade. This season seems to have little, if any, effect on sales, that is, of a reverse nature."

Chicago Paper Co. Opens New Service Department

The Chicago Paper Company is opening a new service department to assist buyers of especially advertising, book and catalog stock. It is located on the second floor and has two large mahogany tables in the center of the room. If any prospective customer has a job for which he is not certain which stock should be used, he is taken to this service department and there shown finished samples of various work on different papers. He gets an idea of just how his job will look on each kind of stock and he is thus able to immediately decide which kind is best suited to his purpose. The service department is in charge of James L. Smith.

Orders for Fall Delivery on Wrapping Paper

While G. K. Gibson, Chicago Sales Manager for the Wausau Sulphate Fiber Company, is on the west coast spending his vacation, it is reported at his office that, although business is quiet, there are enough orders on the books to keep mills going for the next two months. They appreciate this chance to catch up on orders. Wholesale merchants already have orders in hand for fall delivery of wrapping paper to retailers. The season for this particular line opens in September or October.

Salesmen Win Trip to Paper Mill

The Chicago Paper Company recently conducted a contest among their salesmen and the two who sold the largest amount of "Warren" paper were to be given a week's trip to the mills of the Warren Paper Company, at Cumberland, Maine. Ernest Melchert and Charles Krause were the two highest in volume of sales. These two thrifty salesmen left a few days ago going by way of Montreal. Their destination is the "Warren Camp School" at the mills where they will cover in one week the equivalent of a University short-course in paper manufacture and the selling of it by selling the purchaser the utility of the paper rather than the trade name.

Old Paper Stock Market Irregular

With lower prices which went into effect about three weeks ago, there is a little more activity in the old paper stock market. Paper stock dealers are buying and mills are placing orders sufficient to keep them going, aiming to have on hand at all times not less than a two-week's supply. A number of board mills supplying corrugated box plants are down for repairs taking advantage of the lull in business to bring their machinery and equipment up to the highest point of efficiency.

Paper Issues at Low Levels

Among the stock brokers of Chicago it is reported that International Paper issues and American Writing Paper preferred are selling close to the lowest levels of the year. These stock brokers state that the paper industry is experiencing somewhat dull business compared to the vigorous months since the first of the year. This is at least partially accounted for by seasonal fluctuations, inasmuch as some of the mills are shutting down for a few weeks for repairs as is customary. Production is about 85 per cent of normal, with

(*Continued on page* 34)

"We can Speed up our Paper Machines —*without pitching the wire*"

"And what is more we feed the stock directly on to the wire at any speed we find necessary without the use of slices, and we are making, besides, a sheet of uniform thickness."

"It is all due to a new device that we installed a short time ago. It can be adjusted quickly and easily, and so accurate and fine are the adjustments that the sheet can be made uniform over its entire width. Our wires last longer, too, because we eliminated the slices that used to wear them down."

"The new device was easy to install. We put it right in, in combination with the flow box that we had on the machine. It is called the Voith High Pressure Stock Inlet."

This has been the experience of all manufacturers installing the new Voith Inlet. We will be glad to give you full information regarding it. A post card will bring an interesting illustrated pamphlet.

Valley Iron Works Company

Plant: Appleton, Wis.
New York Office: 350 Madison Ave.

Builders of Fourdrinier & Cylinder Paper Machines, Niagara and Holland Beaters, P. A. P. A. Rotary Pulp & Paper Screens, Wolf Chippers, Valley Wet Machines, and other high grade paper and pulp mill equipment.

New York Trade Jottings

Walter D. Randall, vice-president of the Champion Coated Paper Company of Hamilton, Ohio, has been a New York visitor this week.

* * *

Dr. Hugh P. Baker, secretary of the American Paper and Pulp Association, is expected home the last of the week from a trip through the Middle West.

* * *

The Coated Paper Manufacturers held a meeting this week to discuss the hearing to be held on August 13 by the United States Tariff Commission in connection with the casein investigation.

* * *

J. J. Patricof, formerly president of the Waste Material Trading Corporation, has opened a new office at 15 Park Row, where he will conduct a general business dealing in foreign and domestic rags and paper stock.

* * *

Tissue Paper Syndicate, Inc., manufacturer of tissue paper, 116 Imlay street, Brooklyn, has filed a petition in bankruptcy with liabilities $58,447.36 and assets $6,450. Judge Garvin has appointed Walter S. Gibbs receiver in bond of $2,000.

* * *

The Metropolitan Bag and Paper Jobbers' Association will hold its annual outing Thursday, August 16, at Karatsonyi's Hotel, Glenhead Station, Long Island. Buses will leave Borough Hall, Brooklyn, at 10 o'clock sharp Thursday morning. Tickets are $5.00.

* * *

The pulp salesmen of the industry will hold a golf tournament at the Westchester-Biltmore Club on Wednesday, August 1. Train will leave the Grand Central terminal at 9:12 A. M. Only pulp men are eligible to the tournament and already over sixty have entered.

* * *

The Adriatic Mill Supply Corporation, recently incorporated in the sum of $25,000, and with its offices and warehouse at 62 Thompson street, announces the election of the following officers: N. A. Bruno, president; A. Tacetta, secretary, and P. Gallipoli, general manager. The new firm will deal chiefly in city mixed paper, kraft, No. 1 mixed and tailor rags.

* * *

The American Paper and Pulp Association has filed a brief with Assistant Secretary of the Treasury McKenzie Moss, indicating the extent to which the dumping of Norwegian kraft paper has damaged the American wrapping paper business. Some striking evidence of the inroads made by these importations was presented in the form of letters from dealers indicating that paper is being offered at prices not greatly in excess of the price of the pulp alone to the American mills.

* * *

While no definite plans have yet been made for the tall building which William Randolph Hearst contemplates erecting on a large plot just west of Columbus Circle, New York, it is believed that work on the structure will be started in the near future. Such a building to house the various Hearst interests has been discussed for some time. Its construction will add materially to the growing commercial importance of the Broadway district immediately north and south of the Circle. Within the seven years from 1914 to 1921, Mr. Hearst accumulated a plot fronting both on Fifty-eighth and Fifty-ninth streets between Broadway and Eighth avenue for his contemplated structure. Tentative plans have been drawn for a building which, with setbacks, will have a height of from twenty to twenty-five stories.

* * *

The details of the collection of the statistics in the production of paper and pulp are rapidly being worked out by the American Paper and Pulp Association but of course there will be some delay in getting out the figures for June. Inasmuch as the association is a federation of association representing the different paper making groups, the collection of the statistics will be done as far as possible through these group associations, and the News Print Service Bureau which, as it includes Canadian mills also, is not a member of the American Paper and Pulp Association. The newsprint figures will be furnished the American Paper and Pulp Association through the News Print Service Bureau, exactly as is planned for the association's affiliated groups. This method of collecting the statistics, therefore, will avoid the duplication of reports by mills belonging to the group associations, but will continue the same form of reports previously made by the outside mills to the Federal Trade Commission. To this extent the collection of the statistics by the American Paper and Pulp Association will be a simplification of the previous method of compiling production figures for the industry.

CHICAGO ON SUMMER SCHEDULE

(*Continued from page* 32)

orders received in about the same volume. It may be said for both the paper and pulp industry that conditions are normal for the season and will be quiet for the summer months, but it is anticipated that the fall will see a return to good volume somewhat in excess of normal. Labor has expressed its desire for wage increases, but mills have not granted any increase as business conditions at present do not warrant an advance, particularly as the present wages are far above the average. The trade anticipates that raw materials may soften slightly during the summer months, but not enough to affect costs, and expects an advance again in the fall.

Activities of the Paper Trade

The Chicago paper merchants, who entertained the Milwaukee paper merchants at the Glenflora Golf Club, recently, report that good fellowship prevailed during the entire outing. The winners of the match were: H. T. Smith, of Bradner Smith & Co., Chicago, low gross; John Sweigert, of the Sweigert Paper Company, Chicago and Harry Thomas, of Parker, Thomas & Tucker Paper Co., also Chicago, tied for first place for low net. Second low net was won by Mr. Christensen, of Allman-Christensen Co., Milwaukee. An elaborate dinner was served in the evening. In all, 26 attended, of which number five were from Milwaukee.

Service Envelope Company are building a plant at Penrose avenue and Kingshighway, St. Louis, Mo., a short distance from the plant of the Standard Corrugated Box Company.

Horace M. Gimlin, vice-president of Dwight Brothers Paper Company, Chicago, has just returned from his vacation and is in especially good health.

H. A. Rowley, secretary of the Chicago Paper Company, is away on his vacation and will not return until the middle of August.

Paper Products Company, 105 W. Monroe street, Chicago, has been incorporated with a capital of $40,000. The incorporators are: Thomas Munro, Elma Dehne and Arthur A. Aggerbeck.

Consumers' Asbestos Roofing Company, 422 N. Sacramento avenue, Chicago, has also been incorporated with a capital of $30,000 to manufacture asbestos products. The incorporators are: William G. Murray, B. T. McCanna and Eugene T. Sullivan.

Huntington Mills Closed

PITTSTON, Pa., July 23, 1923.—A report in the *Pittston Gazette* states that "the Mountain Paper Company, at Huntington Mills, has closed indefinitely. The plant manufactured paper napkins and towels and was managed by Thomas Lewis, of Kingston, formerly associated in the business with Michael Whalen, former warden at the county prison."

M. M. Elish & Co., 29 Beekman street, New York, have been the selling agents for this mill, which has been operated recently as the Huntington Mills Paper Company.

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Maj. McKay Goes With Seaman Paper Co.

[FROM OUR REGULAR CORRESPONDENT.]

CHICAGO, July 23, 1923.—George M. Seaman, president of the Seaman Paper Company, and also president of the Eddy Paper Corporation, has announced the appointment of Major Alexander J. McKay, as vice-president and assistant to the president, of the Seaman Paper Company. Mr. McKay took up his new duties on Monday, July 9, and will be permanently located in the general offices of the Seaman Company in Chicago. This brings into the Seaman Paper Company one of the best known men in the industry, not only from a manufacturing standpoint, but from a sales standpoint as well.

Mr. McKay was for ten years associated with the Combined Locks Paper Company at Appleton, Wis., as vice-president and general manager. When he and his associates took over the Combined Locks Paper Company, the total capacity of these mills was about

MAJ. A. J. MCKAY

15,000 tons per year. They are now producing approximately 30,000 tons of light weight catalog, which is equivalent to 45,000 tons News, per year. Under Mr. McKay's supervision, the mills were almost completely reconstructed as regards buildings and equipment.

The citizens of Appleton tendered a public farewell dinner to Mr. McKay on the occasion of his leaving, at which close to one hundred persons were present. Remarks made by representative business men at the dinner voiced the sentiments of everyone in the community, who keenly feel the loss of a one hundred per cent plus citizen,—one who was never missing when there was work to be done. His greatest achievement in public work was the part he played as Chairman of the campaign for St. Elizabeth's Hospital, during which more than half a million dollars was raised. He gave freely of his time, energy and means to establish the great institution, and this work will stand out as a monument to the public-spiritedness of Major McKay, and the men and women whose contributions made it possible.

In announcing the appointment of Mr. McKay, Mr. Seaman made the following statement:

"I have known Mr. McKay ever since he has been in the paper industry, and have had the closest business relations with him. He is a man I have long wanted to have a part of the Seaman organization, and I know that he is going to add strength to this company in both the manufacturing and sales end. He is an all-around paper man and few know the business as well as he. Mr. McKay has some very definite ideas as regards the condition of the paper industry. The coming of Mr. McKay to the Seaman Company rounds out the organization in a way that I have desired for a long time. He will not only be active in the sales of the Seaman Paper Company and in the various mills with which we are connected, but we shall expect to use his knowledge to great advantage in the Eddy Paper Corporation, of which we are in charge in the operation, management and sales."

Nekoosa-Edwards New Mill Ready

PORT EDWARDS, Wis., July 17, 1923.—The new paper mill at Port Edwards of the Nekoosa-Edwards Paper Company, known as Alexander Mill, will start operation Monday, July 23, according to present reports from the office there. This is considered a record achievement as the contract for the two machines was not awarded to Beloit Iron Works until December 15 last, and the contract for the building was not let to the Meyers Construction Company unil February 10.

This has not only been the construction of building and machine in record time; but the completion of a hydro electric plant and the addition of two 1500 K.W. steam Westinghouse turbines to the steam plants and a three story finishing and storage building to accommodate 3,000 to 4,000 tons if need be.

The date set by Mr. McBain to make paper when the contracts were let, was July 1; but the machine builders were unable to get some of the materials and the delivery date of the first machine was 60 days later than expected. However, the starting date is only three weeks late, showing the efficient way in which everybody handled the work given them to do.

E. P. Gleason, chief engineer, was in charge of the building and power installations with Henry M. Ford as chief assistant and John Walley as construction superintendent. Emil Vesper of the Beloit Iron Works had charge of installing the first machine.

This is the first 12' Yankee machine of Beloit Iron Works make to be erected in America. It is designed to run up to 650' per minute and all auxiliary machinery is of capacity and quality to allow of this maximum production.

Everything in the new mill is of the latest and most approved type and many new ideas have been developed heretofore unused in the industry, including Youngchild beater rolls, which are doing such wonderful work in the Nekoosa Mill, where they were developed.

Sidney Frohman Resigns From Hinde & Dauch

SANDUSKY, Ohio, July 23, 1923.—Sidney Frohman, chairman of the board of directors of the Hinde & Dauch Paper Company, has resigned. His resignation was accepted and Attorney R. K. Ramsey was chosen to fill the vacancy temporarily.

Frohman is a son-in-law of the late Jacob J. Dauch, under whose direction the company developed.

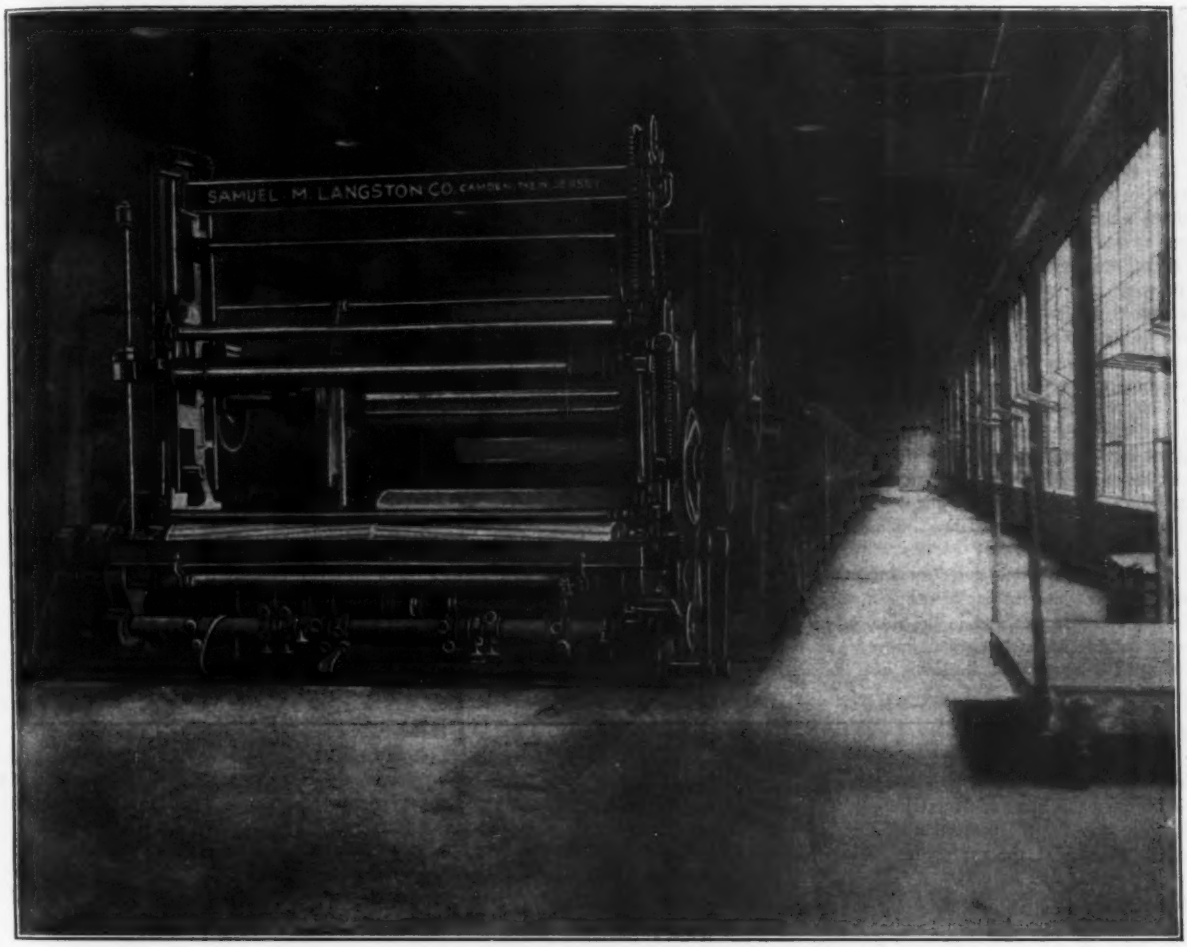
American Writing Committee to Meet

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., July 24, 1923.—The Executive Committee of the American Writing Paper Company, about ten in number, will be the guests of President S. L. Willson this week, the meeting of the committee being held in Holyoke and opportunity being given them to examine and inspect a number of the plants of the company.

Newfoundland Power & Paper Issue

A cable from London to the *Wall Street Journal* says Newfoundland Power & Paper Co. has now surmounted difficulties and persuaded the government to guarantee its proposed £2,000,000 5½ per cent Class B debenture stock. Issue price is to be 98½ instead of original 95 and underwriting commission has been reduced to 1¼ per cent.



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FOREST PROBLEMS OF THE COUNTRY AND MANNER IN WHICH THEY MAY BE SOLVED

By Hugh P. Baker, Secretary, American Paper and Pulp Association

The story of the part which the forests of this country have played in the building on this continent of a great nation will be written some time later when our virgin forests get further away from us and when we come to look at them as we are now looking at the disappearing game resources of the country.

It would be very helpful if this story of the debt which we owe the forests of this country for making us what we are as a nation could be written now, and by a master who would paint the picture so effectively that we would put ourselves promptly to the task of protecting and conserving the remnants of the forests which are still left to us. Such a story told so that all could understand would hasten the acceptance by the states and the Nation of the task of again making productive the millions of acres in the country which are now idle, waiting patiently for man to appreciate their importance in our great economic developments.

The first settlers, on landing on our Eastern shores, found the forest coming to the very water's edge and extending inland—no one knows how far. A more magnificent forest never before had been seen by white men. It was a forest wonderful in the great diversity of its species and in the timber value of its trees. These forests served the early settlers more fully than expected in the building of homes and in the living of a full and effective life.

Early Rules to Protect Forests

These fathers of ours came to America from countries in which the forests were already disappearing, and hence some of the first rules and regulations made by them were for the forests. Exeter, which is now the State of New Hampshire, passed rules and regulations in 1640 for the protection of the forests. In 1682 William Penn ordained that the grantee must keep one-sixth part of his land in forests, and as early as 1783, every one of the Thirteen Colonies had forest fire regulations.

Instead of the marvelous forest which covered our Eastern States being considered a friend of the early settlers it soon came to be regarded as an enemy. It harbored wild animals and wilder men, and the struggle involved in getting rid of the forest that the soil could be used was a tremendous one. There gradually developed the idea that the forest was an enemy to be gotten rid of as rapidly as possible. Along with this idea of the forest as an enemy there developed also, as a result of explorations of the hardy pioneers in the Ohio Valley and the Northern Lake States, the idea of the forest as an inexhaustible resource. Our fathers said the forest extended westward, no one knew how far, and why should they be concerned with the future of the forests?

Through the first 125 years of our life as a nation, wood was so abundant and so cheap that carelessness and waste in the use of the forest became ingrained in our people. Trees were wasted as they were cut in the woods, logs were wasted at the mill and lumber was wasted as it was used in building and for furniture. Much of the waste in the use of our forests up to 1900 or even 1920 was in a sense unpreventable economically, because lumber and wood generally were too cheap to allow of complete utilization.

Educating the People to Forest Waste

Much the same wastefulness has occurred in the use of our soils and our mines down through the years, and less is said of this wastefulness because it is less evident than waste in the forest. It hasn't been easy to overcome this idea of waste in the use of the forest and other natural resources. It took 250 years to educate our people to waste, and we are not going to overcome that idea without years of aggressive educational activity.

The contact of our fathers with the forests made them sturdy pioneers, independent in both thought and action. In fact these forests developed a people ready to fight for independence from the old country, a people of such physical and mental worth that it was easy as we entered the Great War to build an army from their sons and grandsons the like of which has never been seen.

As we worked westward as a nation we found tremendous forests of virgin pine in the South, and saw-mills have been busy there for years. Today we can see clearly that within a dozen years, or less, if the present rate of cutting is maintained, a stand of virgin Southern pine forest will be a rarity. Then came the movement to the Pacific Coast, and the marvelous forests there are still a reservoir of wood for the industries and for construction purposes for this country, if not for the entire world.

So we have been blessed with the greatest and most valuable forest that any nation has had for its development and growth. It would be out of place to quote statistics as to the forests which originally covered whole states in a solid belt of timber. It should interest us vitally to know, however, that 70 per cent of the original stand of virgin timber has been cut, and this tremendous use has taken place almost entirely within the last hundred years. So, too, in the rapid cutting which is now taking place, we are using annually more than four times the timber which is being produced by growth in this country.

We are facing, indeed, a period of lean years that should cause every man concerned with the business success of this country, and with the hope for a country that will be a good place for his children and his children's children to live, to rise up and demand that the government adopt a practical and workable forest policy, that the states co-operate with the government and that something be done at once to preserve the remaining virgin forests and to renew forests over the idle lands of the country.

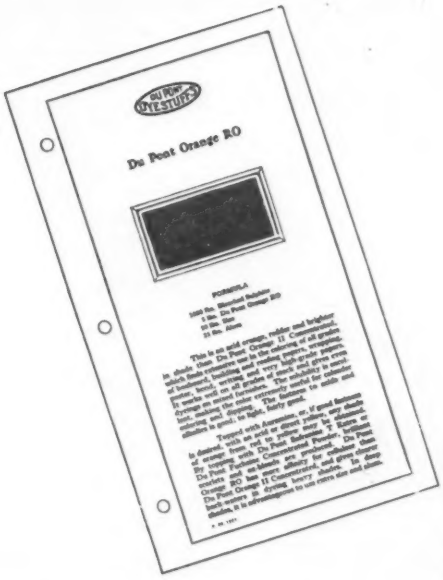
Reaching the End of Our Forest Resources

The marvelous forest wealth of this country has already been described briefly. We have used that forest wealth in the building of a great nation. It should be kept clearly in mind that the forests of this country are here for our use, just as much as the soil, the water and the air. Forestry, by which we mean keeping forest soils productive, is not a sentimental idea; it is just as much an economic problem as is agriculture, which, in a large sense means keeping agricultural soils productive. Only as we look at forestry as an economic problem and solve it in that way, can we expect the results demanded by the industries and by the people generally in this country.

True, we had to go through a sentimental stage in the development of forestry. We had to have the interest and support of forward-looking idealists who could see, as the result of knowledge of European conditions or because of love of the woods, what we were facing in the years to come. For twenty years forests, and those interested in forestry, have been up against a stone wall of indifference as to the future of our forests, and largely because through these years lumber and other forms of wood have been too cheap. Now, with the cost of wood passing the cost of production, we are getting out of the sentimental stage into the economic stage, and it is going to be—it is now—good business to grow forests for the production of pulpwood, poles, ties, lumber and all of the other things which we expect from the forest.

(*Continued on page* 40)

Technical Service to Dyestuffs Users



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STANDARD DU PONT DYESTUFFS UNIFORM

FOREST PROBLEMS OF THE COUNTRY

(*Continued from page* 38)

But what a nation of wasters we have been! How we have wasted with extravagance not only our forest resources, but our soil resources and our mineral resources. What a bonfire we have kept burning in this country down through the years, as our forests have burned while we stood idly by feeling somehow that there must be forests elsewhere for our use.

Annually, forest fires in this country have been burning over an area of more than seven million acres of forest land. This is equal to twice the area of forest land from which we cut timber annually. Expressing the amount we pile onto our forest bonfire in board feet, it is more than the lumber used annually by the great State of Pennsylvania. Fortunately for us, with our childish indifference as to the future of our natural resources, the forest is a renewable resource, and while we shall pay dearly indeed for the indifferent attitude which we have taken, we can, by the use of time and money, again cover the forest lands of this country with a profitable forest, except, of course, where the soil itself has entirely disappeared as result of fire and erosion following fire.

Most Serious Result of Forest Fires

As dreadful as the destruction by fire of a standing tree of a forest may seem, it isn't always this burning of the tree and the forest that is the most serious damage from the fire. All too often the forest fire, even a surface fire, eats into the soil, destroying the natural fertility that comes from decaying vegetation, and exposing the mineral soil to be washed by the next freshet into the stream, the river and the harbor. In other words, it is destruction of the *potential value of the forest land* that is the serious result of forest fires and particularly of such repeated fires as occur in sections like northeastern New England, northern New Jersey and the northern Lake States.

As result of experience with forest fires and erosion in this country, a forester is rather likely to question the statesmanship exercised in the making of annual appropriations by Congress of millions of dollars for river and harbor improvements. Annually in this country, tremendous quantities of silt and debris are washed into our streams and rivers from hills and mountains which would naturally hold the soil where it belongs. If we could spend annually in this country even a small amount of the appropriations for river and harbor improvement in reforesting the watersheds at the headwaters of our streams and rivers, it would be but a short time when we could begin to cut down very materially the appropriations necessary to dig silt and debris from our rivers and harbors. Covering the headwaters of streams and rivers in this country with well-managed forests will go a long way in helping to prevent destructive floods. Forests plus storage reservoirs will come as near as man can come to controlling flood conditions in streams and rivers. Neither forests alone nor storage reservoirs alone will solve the flood problem.

What we are up against today as the result of the rapid disappearance of the forest is more than a discussion of the effect of the destruction of forests by fire with resultant erosion and disappearance of fish and game. It must be a definite facing of the fact that our industries need wood which they cannot get, that we need lumber for construction of homes and that we need the forests for their indirect value of water conservation, game protection and recreation.

To emphasize the lean years ahead of the wood using industries particularly, we have but to consider the situation in some of the great forest States. In 1850 New York produced more than a billion feet of lumber and ranked first among the States in the production of lumber. Today she is importing more than 85 per cent of her lumber and wood needs from the outside. Michigan, in 1890, ranked first in the production of lumber among the States, producing over four billion board feet, and today Michigan is importing more than 80 per cent of her lumber and wood needs, much of the lumber coming from the South and the far West. As a whole, the Lake States today have left only about 3 per cent of their original evergreen forests.

Paper Industry Facing Definite Threat

The paper industry is facing a very definite threat on the part of Canada to cut down or cut off entirely the export of Canadian wood to American mills, and this threat may mean the moving of our mills across the line northward. That is, the very life of our industries is at stake because of the rapidity with which our forests are disappearing. While the paper industry is absolutely dependent upon wood it is today using not more than 5 per cent of the total wood cut in the United States. The great furniture industries, chemical industries and construction needs are almost daily facing advances in prices of materials which they must use, and the public is paying these advances.

One of the most difficult situations which we are facing today in this forestry problem is the constantly increasing area of non-productive land resulting from present methods of utilizing our forests. An idle acre is just as uneconomical as an idle man. Yet New York has under the plow but fifteen million acres out of thirty millions and it is a conservative estimate to say that it has six or eight million acres of forest land giving but a small fraction of a per cent of the returns which could be given under proper forest management. Less than one-third of New England is under the plow. In Pennsylvania but ten million acres out of twenty-eight are under the plow. There is enough forest land East of the Mississippi and North of the Potomac, if covered with a productive forest, to grow all of the wood we need in taking care of our wood using industries, and it is safe to say that we would become large exporters of wood if these millions of acres of forest land were again made productive.

An interesting sidelight on this idea of renewing our forest is that a virgin forest is usually not a productive forest. The rapidly growing young spruce forests of northern New York which are virgin in character are today producing but 200 board feet per acre, per year. Well-managed forests in Germany and France are producing at the rate of one thousand to fifteen hundred board feet per acre, per year. We can and will grow more and better wood on the forest lands of New England, New York and the Lake States than were ever produced there by nature alone.

What is needed in solving this problem of a permanent supply of reasonably cheap wood is the aggressive interest and support of every man and woman who believes in maintaining this country in its present position as a nation.

The Solution of Our Forest Problem

The dependence of the industries of the country upon a cheap and reasonably permanent supply of wood is very apparent when consideration is given to the present day prices of lumber, of pulpwood and even of cordwood.

When we think that at one time white pine forests covered the country in an almost continuous belt from Maine to Minnesota, and that now it is possible to go into the lumber markets of the large cities and buy mahogany from Madagascar or Central America cheaper than we can buy first grade white pine lumber, we realize that we are facing some very definite forest problems. But the advance made in the price of lumber is not the only indication of diminishing supplies of wood. Pulpwood for the manufacture of pulp and paper, which a few years ago cost from $4 to $6 a cord, is today costing from $14 to $20 a cord. Cordwood which has been

(*Continued on page* 42)

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Sales Offices in All Principal
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Westinghouse

FOREST PROBLEMS OF THE COUNTRY

(*Continued from page* 40)

the great source of fuel in this country, and is yet a source of fuel for smaller communities, is costing today all the way from $12 to $30 a cord. Into the prices of lumber and other forms of wood there enter, of course, numerous different factors such as the increased cost of labor, increased transportation cost, unfortunate methods of taxation and other factors besides diminishing forest area.

Press Dependent on Wood Supply

The dependence of the daily press and of the magazines of the country upon a reasonably cheap and permanent supply of wood, while not so apparent as with the construction, the furniture and the pulp and paper industries, is as fundamental and complete. The paper industry is a wood using industry. All of the paper used in newspapers and magazines is made from wood. Increase the scarcity and cost of pulpwood, and the cost of producing newspapers and magazines is increased. The press of the country should be and can be the leader in developing the practice of forestry by the several States and the Nation.

One of the heaviest burdens borne by the public in meeting the needs of today for lumber and wood is the price, which, after all, the public is paying, for freight on wood brought into eastern markets from the far south or the northwestern forest States. It is estimated that in 1920 the city of Chicago paid over $24,000,000 for freight on lumber and other wood products brought into the city for use or distribution. A few weeks ago, while in the Central Adirondacks, attention was called to new buildings just erected in connection with a summer resort development. When one appreciates that nearly all the finished lumber going into these buildings, situated as they are in the center of a forest area of over two millions of acres, was brought from Washington and Oregon, or Louisiana and Texas, it is easy to understand the price we are paying for our indifference in this forestry question.

As the present forest situation and the pressing needs of our industries and of our people generally for products of the forest are becoming better known the question is being asked more often as to what can be done. What is the solution?

Steps to Prevent Forest Fires

The first and most important step to be taken in protecting, preserving and increasing our forests is to stop forest fires. Several of our States have made fine progress in applying methods of protection of the forests from fire. New York State is a leader in this work and yet we are having forest fires and will continue to have them until the public understands more thoroughly the necessity for protection of our forests from fire, and until there can be greater appropriations by both the federal government and the States for forest protection.

It is probable that there are very great areas of cutover lands, particularly in New England, the Lake States and the South, that will reforest themselves naturally if fires can be kept out. It is feasible to keep fires almost entirely out of the forest. We prevent and fight fires in the forest just as in the cities, that is, we try and organize the forests so that it will be difficult for fires to start, but if started, that they may be overcome immediately. Using the practice of fire fighting common in our cities, we must have means of knowing immediately where fires start in the forest and then have trained men with the right kind of tools to get to the forest immediately to put them out. Observation towers, supplemented by telephone and patrol system, are among these requirements. In most of the forest countries of Europe fires do less damage in the forests than insects and fungi, and we must seek the same end here.

Taxing Methods Should Be Changed

The second step is to change present wrong methods of taxing forests and forest lands. Our forests have been wrongly taxed down through the years with the results that more forests have been wasted in this country through bad methods of taxation than have been used by the entire furniture industry for example. No farmer and no business man could do business under methods of taxation as now applied to the forests. Instead of taxing the forest crop annually, forest lands should be taxed on the basis of yield, that is, there should be a low general tax on the land as there is on agricultural land, and then when the forest is cut there should be a tax on the yield of wood. Many a lumberman has been forced to cut his timber simply because it was being taxed out of existence. It is not easy to change tax laws in America, but the methods of taxing of our forests must be changed before there will be any considerable practice of forestry by private owners.

A third step necessary in bringing back our forests and making them productive is to begin reforestation upon lands which have been so denuded that they will not come back to forests even if they are protected from fire. It is estimated that we have over 80,000,000 acres of forest land so thoroughly denuded that we must replant them artificially to get them back into forests. It will be expensive to plant and wait for the first crops from the forests. So it has been expensive to build great highways up and down the country, but when the public finally awakens to the fact that it is paying a tremendous price for inaction it will demand a comprehensive reforestation program that will put our idle acres to work and put us far ahead in the solution of our wood problem.

It does not take 150 years to grow a crop of trees. We have held that idea generally in this country because a virgin forest grows slowly and the big trees are often that age and more. A properly planted and managed forest of such evergreens as the spruce and the pine will begin to give us returns on the investment in from 16 to 30 years, and thereafter we shall have regular periodical returns which will pay more than a fair return upon the investment.

National Forestry Policy Needed

Finally the public should demand that Congress adopt a sensible national forestry policy. It is inconceivable that this great Nation of ours has come down to 1923 without such a policy. Able men have been working as foresters for more than 20 years in this country and know what must be done and what is a practical forestry policy. We haven't as yet the interest and support of a sufficiently large part of the public to secure action by the Congress.

The Chamber of Commerce of the United States, which has taken farsighted leadership in many of our national problems, appointed more than two years ago a committee on a national forestry policy. This committee held hearings from coast to coast and now has a very comprehensive report before the chamber. This report when sent out for referendum to the 1,400 and more constituent bodies of the chamber will have very great educational value. The forest schools and state departments of forestry have been carrying on, often with very meagre funds, really effective educational work.

The forestry problem of this country is such a big one, however, that in a sense a generation must be trained from boyhood to appreciate what must be done and how it is to be done. The press of the country is taking great interest, but it must take greater interest in this nation-wide problem. The foresters of the country are looking to the press as never before for the assistance which only the press can give in awakening the people so that they will demand action and that immediately.

To Manage Sales of Hummel Ross Co.

HOPEWELL, Va., July 23, 1923.—E. V. Fox has been placed in charge of Sales of the Hummel-Ross Fiber Corporation, manufacturer of pure sulphate kraft pulp and paper at this place.

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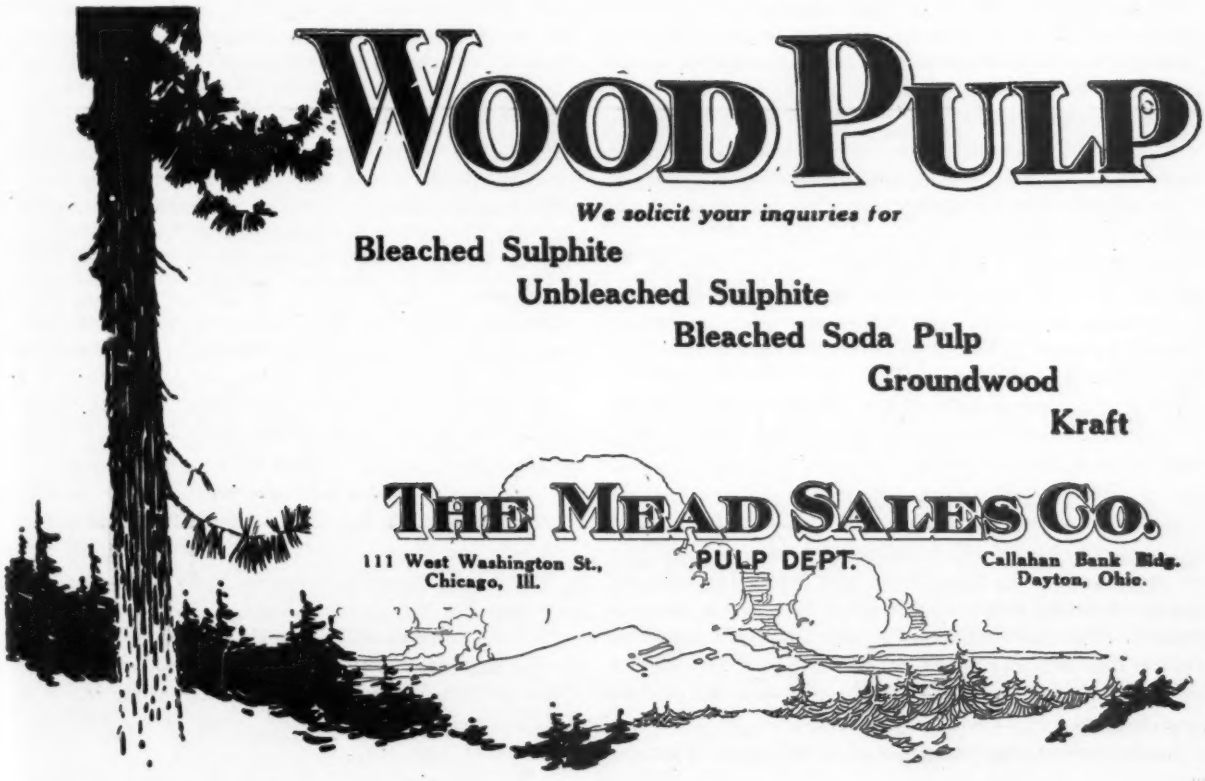

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Editorial

Vol. LXXVII New York, July 26, 1923 No. 4
HENRY J. BERGER, Editor

CAUSES OF INDUSTRIAL ACCIDENTS

An analysis of the causes of 350,000 industrial accidents recently made by the National Bureau of Casualty and Survey Underwriters for the National Council on Compensation Insurance has now definitely made known for the first time the exact degree of the seriousness of each of the principal causes of industrial accidents, which was heretofore largely measured by the exercise of personal judgment. This analysis provided the basis for the new industrial compensation rating schedule which went into effect on July 1 of this year.

The new rating schedule, which is applicable to every industrial plant carrying workmen's compensation insurance in nearly every state in the Union, while similar in a general way to the rough schedules which preceded it, presents for the first time an accurate system of measuring the compensation cost of the accident hazards of any individual plant. The use of this system for determining the rates for workmen's compensation insurance to be applied to any particular plant should, according to Jesse S. Phillips, General Manager of the National Bureau, increase greatly the effectiveness of industrial accident prevention work by revealing to the individual plant manager those accident causes in his plant which are most productive of accident costs.

The revision of the old rating schedule, participated in by representatives of all classes of casualty insurance companies, has been under way approximately two years. The outstanding difference between the old and the new schedule is that the latter is based on the actual cost of various types of accidents, as revealed by the study of 350,000 accidents, whereas the old schedule was based almost entirely on judgment or on unrefined statistics. The structure of the schedule has at the same time been greatly improved and simplified.

The accidents covered by this analysis all occurred within one recent year in the plants insured by members of the National Bureau of Casualty and Surety Underwriters which is the representative national organization of the principal stock casualty companies in the United States.

The most striking revelation of this analysis was the seriousness of the point of operation on machines as an accident factor. Safety engineers have always recognized that unguarded points of operation on machines constituted one of the most prolific sources of accidents. But the high percentage of this type of accident revealed by the survey surprised all of the insurance companies' engineers and research men. The figures in the paper industry were 40.5 per cent for all machine accidents and 34 per cent for point of operation accidents. The research men were not surprised to find that in the machine shop industries machinery was responsible for about 32 per cent of the total accident costs of those industries and that the point of operation of machines alone was responsible for 20 per cent of the total accident cost. Contrary to all expectations, however, the analysis revealed that in many industries the cost of accidents due to machines, and particularly to the point of operation of machines, was greater than for machine shop industries.

In the opinion of the men who made this analysis the unexpected severity of machinery accidents is accounted for by the fact that the point of operation is the accident cause to which workmen are exposed the greatest part of their time and by the fact that the point of operation of a machine presents the most difficult problem to be met with in mechanical guarding. They found that in the case of some machines it is not difficult to design guards for the point of operation which will prevent accidents without reducing production; on the other hand it is extremely difficult to meet both these conditions in the case of many other machines.

Furthermore, it was recognized that there is a constant tendency in industry to substitute mechanical for manual operations, and as a result machine accidents are bound to cause an increasing proportion of the total number of accidents.

FOREIGN PULP AND PAPER PRICES

While the monthly average import price of ground wood for May, which has just been issued by the Department of Commerce and which is the latest report available, shows a considerable decline as compared with the price for April, the figures for both bleached and unbleached chemical pulp show the continuance of about the same average appreciation in price that has been taking place for some months past.

The monthly average import price per ton of ground wood for May was $34.93 as compared with $37.16 for April and $26.86 for May of last year.

The monthly average import price per ton of unbleached chemical pulp for May was $62.95 as compared with $60.00 for April, $59.50 for March, $46.30 for February and $57.17 for May of last year.

The monthly average import price per ton of bleached chemical pulp for May was $92.05 as compared with $91.10 for April, $88.10 for March, $84.10 for February and $85.47 for May of last year.

The monthly average import price per pound of news print for May was 3.74 cents as compared with 3.75 cents for April, 3.71 cents for March, 3.75 cents for February and 3.47 cents for May of last year.

The monthly average import price per cord of pulpwood for May was $9.48 as compared with $8.98 for April, $8.98 for March, $8.95 for February and $10.28 for May of last year.

The monthly average export price of news print per pound for May was 5.3 cents as compared with 4.7 cents for April, 4.8 cents for March, 5.10 cents for February and 4.8 cents for May.

PAPER MILL WAGES AND EMPLOYMENT

Statistics just issued by the Bureau of Labor Statistics continue to reflect a comparatively busy situation in the manufacture of pulp, paper and allied lines.

The Bureau received replies from 175 paper and pulp plants showing their employment in May to have been 51,563 increasing slightly in June to 51,928, an increase of .7 per cent. The pay rolls in these plants also increased from $1,360,701 in May to $1,362,502 in June, an increase of .1 per cent.

The Bureau also received replies from 140 paper box factories showing their employment in May to have been 13,708 increasing slightly in June to 14,215 or an increase of 1.7 per cent. Pay rolls in these paper box factories also increased from $288,530 in May to $294,047 in June, an increase of 1.9 per cent.

Replies were also received by the Bureau from 70 paper and pulp factories showing their employment in June of last year to have been 20,671 increasing in the same month of this year to 23,146, an increase of 12 per cent. The payrolls in these plants also increased from $474,754 in June of last year to $614,982 in the same month of this year, which is an increase of 29.5 per cent.

Canada and Her Pulpwood

"If Canada is guided by the highest and broadest motives, the postponement of the pulpwood embargo will be made indefinite, despite all the sentiment for an embargo manifested in many Canadian circles," says an editorial in the *Boston News Bureau*.

"It is true that certain incentives of immediate self-interest appear to urge the Canadians toward such a policy of restriction. They own the woodlands. These, like our own in the past, are not inexhaustible. While they last, there is the chance for aggrandizement and profit in keeping home such resources and in building up a great manufacturing industry. American branch plants have shown the way. Already the Canadian export of print paper has risen from a quarter-million to a million tons. In addition to which are certain provocations toward selfishness or spite as supplied by our recent tariff action and by our present attitude toward reciprocity.

"Moreover, strategically the Canadians seem to have the upper hand just now not only through the nine points of possession but through the fact that we appear to have no presently available weapons of reprisal. Our tariff—which has already done about all it could to harm Canadian wheat and Cuban sugar—does not appear to offer any new leverage that Washington sees or Ottawa fears. There would be no force just now, nor is there any later prospect, in our Commerce Commission clapping a car embargo on coal to Canada—which might only hasten its development of its own coal measures and its use of substitutes for anthracite.

"Hence the temptation to the Canadians to transform their pulp wood monopoly into a wood pulp monopoly, by capture of the manufacture through "hogging" the raw material supply. The work and the wages and the profits would then go to Canadian labor and capital. American paper mills might have to shut down or to move north. American paper consumers would have to pay much more.

"Hence our recourse to diplomatic argument, headed by the State Department's efforts, to persuade the Canadians of the ultimate folly of such a program. We have been jointly vaunting the long peace of an unfortified frontier between us. That same spirit should counsel also against reprisals that might tempt toward economic warfare.

"Last winter we consistently displayed—whatever our tariff thrusts on grain—a spirit of neighborliness toward Canada in the matter of anthracite that should not soon be forgotten. In many quarters in this state it roused much resentment, on the score of self-defence. If things ever came to an all-around retaliation, we probably could score the heavier in the end, on such things as cotton and financial capital as well as coal.

"There has been irony in our joint situation—for example, reciprocity first offered by us and spurned by them now offered by them and spurned by us. As a matter of economic fact, it is along such lines that true progress tends—just as we have no economic barriers among our own 48 commonwealths.

"In Europe today one of the many plagues is the erecting of artificial barriers to the flow of trade, the monopolizing of materials. We should not be cheaply tempted to emulate them on this continent."

German Paper Going to Mexico

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., July 25, 1923.—Vice-Consul Evans, at Mexico City has forwarded the following report to the Department of Commerce on the Mexican paper situation:

"An analysis of statistics during the first four months of 1923 as compared with the previous two years would seem to warrant the conclusion that the rapid development of German paper sales in Mexico during the months of January to April of this year have been realized at the expense of American paper exporters, who furnished the Mexican market with 66 per cent of its requirements in 1922 and with but 51 per cent in the first four months of the current year. During the same period German imports have increased to 39 per cent as compared with 17 per cent in 1922. In fact German paper imports during the period January-April represented nearly 80 per cent of the imports from the same source during the preceding twelve months, and if entries continue at the same rate throughout the remaining 8 months they will equal more than twice the entire sales for 1922.

Imports of paper from Germany are said to be mainly of a cheap quality, and this report seems to be confirmed by the customs valuation of 13 cents per kilo during the first 4 months of 1923 compared with 32 cents in 1922 and 20 cents in 1909-10. Imports from the United States during 1923 and the previous 2 years averaged approximately 30 cents, an increase of 8 cents per kilo over 1909-10. It is of significance to note in this connection that the customs valuation of paper imports from Germany during 1923 have been one cent kilo lower than those of 1921, when considerable quantities of cheap German paper were dumped on the market at an average price of 14 cents per kilo, according to customs valuation.

Heavy Paper Business in Sight for Fall

"The paper markets of the country are following normal summer trend, but there are already evidences of a resumption of activity earlier than usual in the fall," says the monthly market review of the *Paper and Pulp Industry*, the monthly bulletin of the American Paper and Pulp Association to its members. "There is every indication of an influx of orders to the mills about the first of September, or a month earlier than usual, which will result in a renewal early in the fall of the large scale production which marked the early portion of the year.

"The only disturbing factor would be an effort by labor to secure advances as soon as the mills are busy with a surplus of orders. Paper mill labor is already back to the peak figures of 1920, while paper prices have never returned to the levels of that year. A recent refusal of the men in the fine paper center to strike for higher wages indicates that the better thought of the labor group is against throttling prosperity by unjustifiable wage demands.

"There is every reason to anticipate a high volume of business extending well into 1924. The fine paper mills are even in the summer dullness operating with 85 per cent of orders, book and wrapping mills in many localities are running at capacity. The book paper demand is already increasing."

Columbia River Mills to Build

VANCOUVER, Wash., July 17, 1923.—The contract for the $125,000 paper and sulphite mills building has been let to the Austin company of Cleveland, Ohio, by the Columbia River Paper Mills corporation, officials of the corporation declared today. The company is erecting a $1,500,000 plant on the old Pittock-Leadbetter Lumber company site at the foot of Fifth street. The building will house the two main units of the plant. The contractors expect the structure to be completed within six months time.

The paper plant is expected to be ready for operation by March 1, 1924. The lumber mill is to be ready for operation in September.

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Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

FIGURES ON THE COST OF PAPER DRYING

Comparative Figures Showing Cost of Drying One Pound of Paper with Electricity by Steam Generated from the Electric Boiler as Compared to Drying by Direct Radiation

By John E. Alexander, Nekoosa-Edwards Paper Co.

The problem of drying paper, whether it be with steam in the drum drier or by electricity, is one of the big problems of the paper industry today. Up to date, however, all of the paper has been dried by the use of steam in the cylindrical drum dryer. Very little experimental work has been done demonstrating the fact that paper can be dried successfully by means of electric heat directly applied.

Two things are of vital importance in the drying of paper, whether it be by the use of steam or electricity.

First: To determine and prove that the paper can be dried successfully without destroying the fiber.

Second: To dry the paper successfully at an economical cost so that same can be marketed with profit.

As stated above all of this work in the past has been done with steam, and electricity in the use of drying paper has been an unknown factor and one with which practically no work has been done. However, a new use for utilizing electricity in the drying of paper has come into practice recently, namely, the electric boiler. The purpose of the electric boiler is to take surplus electricity and generate steam for the drum driers. The other use of electricity would be the direct application of same or the drying of paper by direct radiation without the generation of steam. Therefore, in this report only two factors and methods will be considered, namely, the indirect utilization of electricity by the generation of steam with the electric boiler and the direct application of electricity by applying the heat directly in a drying unit, the paper being dried by radiated heat.

Purpose of This Report

I have correspondence with Pusey & Jones, the General Electric Company and the Electric Furnace Construction Company, all of whom are interested in the electric boiler.

In writing to these people in a general way and asking them why it would not be practical to dry paper by the direct application of electricity they offer the following objections:

First: That the mechanical difficulties involved and the construction of such a machine would be impossible both in the cost of construction and maintenance, as well as the operating difficulties.

Second: That the cost in dollars and cents operation in drying paper by this method would be prohibitive.

They follow up their argument by stating that wherever there is a surplus of electricity it can be utilized to the greatest efficiency by means of the electric boiler.

In considering these objections I find that they are theoretical, as none of them has done either practical or experimental work in drying paper with electricity and the objections advanced are conclusions drawn from theory and not conclusions derived by actual running experience and facts. Also they state that the use of the electric boiler in the making of steam for drying paper on the cylindrical drum drier is cheaper than the direct application of electrical heat. This again is also a theory advanced on their part without figures to prove it.

The General Electric Company and the Electric Furnace Construction Company are both working in the promotion of the electric boiler. Their claim is that wherever surplus power can be utilized the electric boiler can be put to practical use. They also claim that electricity must cost not to exceed 1/3 of a cent per kw. h. in order to operate these boilers economically. The final claim is that with electricity costing 1/3 of a cent per kw. h. the electric boiler can generate steam and dry paper cheaper than with the direct application of heat. Fortunately with the work done by the makers of electric boilers and their figures and the experimental paper machine and our figures we can get some comparative data.

The purpose of this report therefore is to prove that with our method of drying we can dry one pound of paper by the direct method 50 per cent cheaper than same can be dried by use of the electric boiler where electricity is obtained for 1/3 of a cent per kw. h. and using direct comparison for all figures.

Deductions

The following is a list of electric boilers that have been put into successful operation to date:

	Kw.	Lb. steam per hr.
Belgo-Canadian Pulp & Paper Co., Ltd., 2 units..	20,000	60,000
Laurentide Co., Ltd., 2 units.....	34,000	100,000
International Paper Co., Niagara Falls.....	5,000	15,000
Niagara Falls Power Co.....	18,000	54,000
Price Bros. Co., Ltd.....	5,000	15,000
Wayagamack Pulp & Paper Co., Ltd.....	5,000	15,000

With the electric boiler we know the following facts: One

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hundred and fifty tons of paper per twenty-four hours is equivalent to six and a quarter (6¼) tons of paper per hour. In drying this tonnage of paper it requires the steam boiler to generate 37,500 lb. of steam per hour. To do this a 12,500 kw. electric boiler will supply the above steam for this drying purpose. Assuming that six and a quarter (6¼) tons of paper require 37,500 lb. of steam 1 lb. of paper will require 3 lb. of steam. Practical tests at Port Edwards and Nekoosa show also an average figure of 3 lb. steam per lb. of paper. The steam cost at Port Edwards is 60 cents per 1,000 lb., or $.0006 per lb. of steam. Therefore 3 lb. of steam cost $.0018. From the October, 1921, issue of the *Super-Calender*, published by Pusey & Jones Company, we have the following formulas:

One pound of coal in the ordinary boiler will deliver about 7,000 B. t. u.; at a cost of $5 per ton equals ¼ cents per 7,000 B. t. u.

One kw. h. is equivalent to 3,415 B. t. u. or 2 kw. h. is equivalent to one pound of coal approximately.

One kw. h. will convert 2.9 lb. of water into steam.

One boiler hp. equals 33,480 B.t.u., or one boiler hp. equals 10 kw. h.

Cost of one kw. h. equals $0.01 at Nekoosa-Edwards Paper Company. Also it is known that 1 kw. h. equals 3 lb. of steam.

Cost for 3 lb. of steam would be $0.01 and equals the cost for drying 1 lb. of paper on cylinder driers where the steam is obtained from the electric boilers.

The following figures are derived from actual tests and operating figures at the Nekoosa-Edwards Paper Company.

Cost of drying 1 lb. of paper by steam from electric boiler (elec. $0.01 kw. h.) ..... = $0.0100
Cost of drying 1 lb. of paper by steam from coal (coal $7.50 per ton) ..... = $0.0018
Cost of drying 1 lb. of paper by electric heating elements (elec. $0.01 kw. h.) ..... = $0.0066

It must be remembered that in all of these figures that are given that we are trying to make a direct comparison of the cost of drying one pound of paper by the electric boiler as compared to the direct method. For our particular purpose the cost of coal and the cost of drying one pound of paper from the generation of steam by coal does not enter into these figures. Also it must be borne in mind that the electric power must cost not to exceed 1/3 of a cent per kw. h. to be economical in the electric boiler. Assuming the cost of electric power to be 1/3 of a cent per kw. h. The cost for drying one pound of paper by the electric heating elements would be $0.00222 or 33 1/3 per cent less than with the electric boiler.

The following table will show the efficiency and saving of the direct application of drying paper over the electric boiler:

Cost to dry 1 lb. of paper by steam. Steam being generated by electric boiler with elec. costing ½ of one cent ($0.0030) per kw. h.	Cost to dry 1 lb. paper with direct application of heat as compared to elec. boiler costs data obtained from our tests.	Cost to dry 1 lb. paper by direct Method as per our experimental tests with elec. at $0.0075 per kw. h.	Per cent saving of electric drying by direct radiation over drying of paper by elec. boiler.
$0.0033	$0.0022	$0.0050	33.3
0.0033	0.0020	0.0045	39.4
0.0033	0.0018	0.0040	46.6
0.0333	0.0009	0.0020	72.9

Conclusions

If we had a paper mill that had a power site where electric power can be produced for 1/3 of a cent per kw. h. we could dry the paper 40 per cent cheaper by applying the heat direct as has been done with our experimental machine than with the most efficient type of electric boiler made.

It must be borne in mind that these figures have nothing to do at all with the price of coal as we are dealing purely with electric energy which would be secured from a central power house. The abundant saving of 40 per cent has been proven by our figures, as we find from a large number of tests that we are able to dry 1 lb. of paper with direct electricity at a cost of ¾ of a cent per kw. h. or $0.0045 per lb., which is a saving of 39.4 per cent over the cost of drying paper with electricity by the electric boiler where current cost 1/3 of a cent per kw. h.

The reason that this report has been made and these figures been brought out in this manner is to show that where electricity can be obtained at 1/3 of a cent per kw. h. we can dry the paper 40 per cent cheaper by our method of drying than with the electric boiler. As our figures progress and our little machine becomes more efficient it will be seen from the above table that if we can drop our figures to $0.0040 per lb. the efficiency will go up to 46.6 per cent and will increase still more as our efficiency increases with the experimental machine. In all of the above figures it must be remembered that the comparisons in this report are limited strictly between the use of the electric boiler and our method of drying paper with electricity at a certain cost. We have figures enough from both methods to prove that with these conditions the paper can be dried considerably cheaper by our method than with the electric boiler.

Cooperative Technical Service

The Technical Association of the Pulp and Paper Industry has instituted a system of technical service for its individual and corporate members.

When a member desires information on a technical or manufacturing problem the inquiry is presented to the secretary who passes it, in blank, with a copy of his preliminary reply, to the other members.

When the returns have been received a transcript of the inquiry with the replies, in blank, are distributed to the corporate members and to those of the individual members who have responded to the inquiry.

By submitting them in blank the identity of the inquirer and those who have responded is not disclosed.

During the past month three such inquiries have been handled and reported on: The relation in width desirable between press rolls and the felts on the paper machine; substitutes for poplar in soda mills, and high sulphur consumption in the sulphite mill—the causes and means of prevention.

The number and character of the responses and the expressions of appreciation of the inquirers are evidences of the general favor with which the plan is regarded.

The corporate members are those companies which have endorsed the policy and activities of the association and contribute to its financial support.

Individual membership includes mill executives, superintendents of pulp and paper mills, plant engineers and technical men engaged in pulp and paper manufacturing and the allied industries, as well as those connected with the government service and educational work.

Practically every phase of the industry is covered by standing committees and in the membership are many of the foremost pulp and papermaking experts and engineers of United States, Canada and Europe.

"Beating" By Dr. Sigurd Smith

This work has been translated into English by Major Renold Marx and is being published. The distribution will be handled by the secretary of the Technical Association, 18 East Forty-first street, New York, who will shortly receive a supply of the volumes. The price in Canada and United States will be $3.60 postpaid.

As the supply contained in the first shipment is limited, those who desire early receipt should have their orders in promptly.

TRAINING TECHNICAL MEN FOR THE PAPER INDUSTRY

By C. E. Libby, Professor of Pulp & Paper Manufacture, New York State College of Forestry, Syracuse

A few years ago a committee representing one of the organizations of the American Paper and Pulp Association made a survey of the paper industry in order to determine its requirements for technically trained men. After a careful study of the situation it was the opinion of this committee that the paper and allied industries could profitably assimilate between fifteen hundred and two thousand college trained men each year.

Notwithstanding the apparent opportunities in this field for technical men, American Universities have been slow to introduce into their curricula the specialized courses necessary for training men specifically for this industry. The failure to establish such courses in the past has very probably been due to the reluctance of the colleges to depart from curricula designed to educate broadly, enabling graduates to choose a vocation in almost any field of activity. The demand of the industries for specialists has gradually brought about a modification of this idea and many institutions of collegiate grade are now training men for individual industries. The paper industry has been one of the last to profit by this educational development for it was not until 1913 that any American University offered organized instruction in this field. Even at the present time there are but two well established courses in the United States and Canada although plans for others are being formulated.

Instruction in paper making was first given at the New York State College of Forestry in 1918. The course was organized to give regularly enrolled Forestry students elementary instruction in the important field of forest utilization embraced by the paper industry. Opportunities for employment in this industry were so numerous that many students, educated primarily as Foresters, were soon filling permanent positions in pulp or paper mills despite the fact that their training had not been designed to fit them for this work. To meet this situation, in the fall of 1920 the pulp and paper courses of the college were reorganized with the object of training interested students specifically for the pulp and paper industry.

The New York State College of Forestry is possessed of an ideal location for a school of papermaking. Not only is New York State the leading state in the number of its pulp and paper establishments, but also in the number of people engaged in the industry and in the production and value of its manufactured products. These factors assure the college of active co-operation on the part of the industry in furnishing to its students opportunities for plant experience and in placing its graduates. Within a radius of thirty-five miles of the college are located more than a score of pulp and paper mills while the Black River district, famous for its pulp and paper establishments, is easily accessible. These mills offer exceptional opportunities to students for trips of inspection and plant operating experience. The convenience of its location makes it possible to develop a keen professional spirit among the students of the college since prominent men in the industry frequently visit it, acting as special lecturers on particular phases of the work, and since students may readily attend the conventions of the industry in New York City or elsewhere in the State at small expense.

Laboratories and Equipment

The New York State College of Forestry, as its name implies, is a state institution, its building having been erected in 1917 on the campus of Syracuse University, at a cost of $250,000. This plant represents the largest and best equipped forestry school in America. The pulp and paper laboratories are located in the basement of the building and occupy approximately 5,000 square feet of floor space. These laboratories consist of a general chemical laboratory, semi-

Building of the New York State College of Forestry, Syracuse, N. Y.

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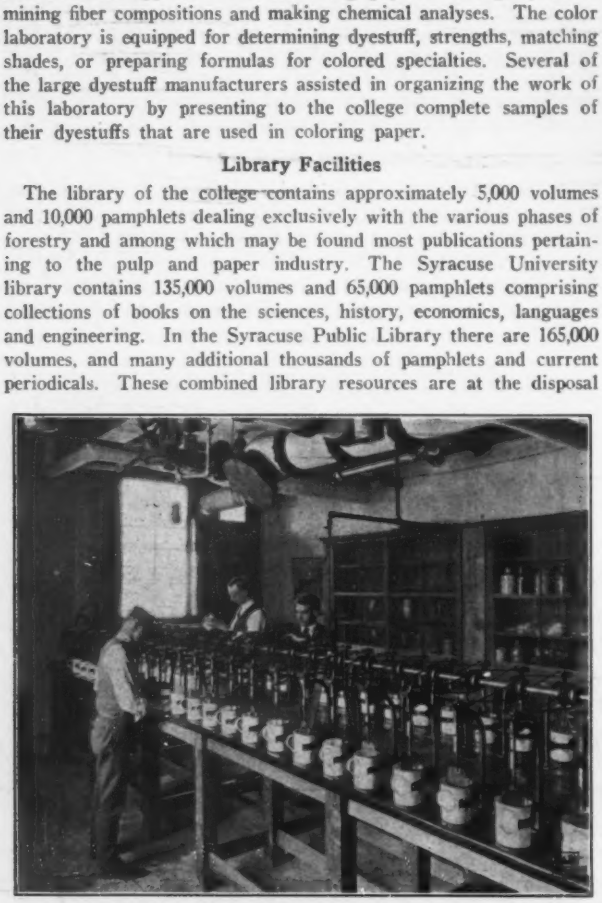
commercial pulp and paper laboratory, paper testing laboratory, color laboratory, and research laboratory. A desirable feature of the organization of the college is its arrangement with Syracuse University whereby all elementary courses such as general chemistry, qualitative and quantitative analysis, etc., are given in the laboratories of the University. This arrangement enables the college to devote its own laboratories exclusively to the specialized work of its departments, giving instruction only to advanced and graduate students. The pulp and paper laboratories of the college are well equipped with approved testing devices and semi-commercial equipment. The experimental pulp mill includes a Mitscherlich sulphite digester, a rotary soda and sulphate digester, diaphragm screen, stock vats, and a rotary steam dryer. The semi-commercial paper mill includes a 15 pound Jones beater equipped with a drum washer. A Noble and Wood jordan engine, Gould centrifugal pump, Rice Barton and Fales wet machine, Harmon diaphragm screen, sheet machine and hand molds. The paper testing laboratory has a complete equipment of the Schopper physical testing instruments, together with the common domestic physical and chemical apparatus for measuring physical strengths, determining fiber compositions and making chemical analyses. The color laboratory is equipped for determining dyestuff, strengths, matching shades, or preparing formulas for colored specialties. Several of the large dyestuff manufacturers assisted in organizing the work of this laboratory by presenting to the college complete samples of their dyestuffs that are used in coloring paper.

Library Facilities

The library of the college contains approximately 5,000 volumes and 10,000 pamphlets dealing exclusively with the various phases of forestry and among which may be found most publications pertaining to the pulp and paper industry. The Syracuse University library contains 135,000 volumes and 65,000 pamphlets comprising collections of books on the sciences, history, economics, languages and engineering. In the Syracuse Public Library there are 165,000 volumes, and many additional thousands of pamphlets and current periodicals. These combined library resources are at the disposal



COLOR LABORATORY
The Technique of Selecting Dyes for Coloring Paper is Acquired by Students in this Laboratory.

of pulp and paper students thereby affording excellent reference facilities and a proper background for research.

Plan and Scope of the Curriculum

The development of a pulp and paper curriculum at a school of forestry represents a departure in technical education in this country. Heretofore all courses of this nature have been developed in connection with the departments of chemical engineering in engineering colleges. There appears to be no reason, however, why such a course should not be based upon the curriculum of a professional forestry course especially if the forestry school is so located that the necessary accessory courses in chemistry and engineering can be obtained readily. In many ways the forestry curriculum provides the most logical foundation for this course.

For many years the principal raw material for paper manufacture in this country has been obtained from the forests. More than 75 per cent of the total production of paper in the United States at the present time consists of woodpulp papers, or papers which con-

PAPER TESTING LABORATORY
Revealing the Physical, Chemical, and Microscopical Properties of Paper.

tain this material as the predominating fiber constituent. Since the production of paper in the United States is approximately 7,000,000 tons annually, there is an enormous drain on our forests to supply the necessary raw material. The present rate of consumption of certain kinds of timber like spruce is so great that they will almost disappear as commercial species within the next twenty-five years. This situation does not mean that woodpulp will soon disappear as a raw material for papermaking, but rather that forest species more difficult to utilize and now considered unfit for pulping will gradually come into use. Fractions of the industry will probably be able to continue with their present raw materials if they adopt scientific measures in reproducing and utilizing their forests.

Since woodpulp is likely to remain a raw material of major importance in the manufacture of paper, it is desirable that the education of a technical man for this industry should include a general knowledge of conservation and forest economics, and a fundamental technical knowledge of the principal raw materials of the industry. A man with this training, coupled with experience in the technical processes of the industry, should have a clearer vision in meeting future readjustments of processes and materials used in papermaking than the man who possesses only a knowledge of the processes themselves.

The pulp and paper curriculum of the College of Forestry is projected with this idea of giving the student a fundamental knowledge of the economic aspects and technical features of his raw materials. Experience indicates that in order to accomplish this not less than 20 per cent of the work of the course must be devoted to a study of elementary forestry, botany, wood technology, cellulose and fiber chemistry.

While the manufacture of pulp and paper cannot be considered a chemical industry, so many of the operations involve chemical processes that the training of a paper technologist would be in-

complete without a thorough knowledge of this science. Approximately 20 per cent of the work of the pulp and paper curriculum consists of courses in pure chemistry while fully 50 per cent of the twenty-nine credit hours devoted to pulp and paper manufacture consist of technological chemistry applied to the specific processes of the paper industry.

The engineering problems associated with the manufacture of pulp and paper are perhaps more varied and extensive than those of the average big industry. A technical man in the mill should have a good elementary knowledge of electrical and mechanical engineering especially with relation to power plant problems. This work is presented in the college curriculum during the senior year. Preparatory courses in mathematics, physics and mechanical drawing precede the courses in electrical and mechanical engineering. Altogether these courses account for another 20 per cent of the total work of the four-year program.

Society has a right to expect of the college man a certain degree of culture, no matter how technical may have been his education. His value to the community depends not only upon his technical ability, but upon his understanding of human relationships, the exercise of his rights and duties as a citizen, and an appreciation of the arts. It is hardly possible for a professional curriculum to develop such phases of education to maturity, but it should stimulate an interest in them. Courses in English and foreign languages, public speaking, elementary and advanced economics, and business law attempt to develop this interest in the work of the pulp and paper curriculum. These courses comprise 15 per cent of the total work of the program.

SYNOPSIS OF COURSES

PULP AND PAPER CURRICULUM

Freshman Year

First Semester	Hour	Second Semester	Hour
Elementary Forestry	2	Forestry Zoology I	3
English I	3	English I	3
Forest Botany I	3	Forest Botany II	4
German I or VI	3	German I or VI	3
Chemistry I	3	Chemistry I	3
Math. I Trigonometry	3		
	17		16

EXPERIMENTAL PULP MILL

This Equipment Reduces Wood to Pulp by Any One of the Chemical Pulp Processes.

Sophomore Year

	Hour		Hour
Wood Technology I	5	Wood Technology I	3
Physics I	4	Physics I	4
Chem. III, Qualitative	3	Chem. III, Qualitative	3
Mechanical Drawing IV	2	Mechanical Drawing V	2
Math. II, Algebra	3	Math. III, Analytics	3
		English II	3
	17		18

THREE MONTHS' WORK IN A PULP OR PAPER MILL

Junior Year

	Hour		Hour
Rhetoric XV, Public Speaking,	3	Economics I	3
Forest Chem. II, Organic	3	Forest Chem. II, Organic	3
Chem. 104, Quantitative	3	Chem. 104, Quantitative	3
Pulp and Paper Mfg. I, Technology	3	Pulp and Paper Mfg. I, Technology	3
Pulp and Paper Mfg. II, Laboratory	2	Pulp and Paper Mfg. II, Laboratory	2
Pulp and Paper Mfg. III, Machinery	3	Pulp and Paper Mfg. III, Machinery	3
Pulp and Paper Mfg. IV, Mill Analysis	2	Pulp and Paper Mfg. V, Paper Testing	2
	19		19

GENERAL CHEMICAL LABORATORY

Devoted to a Study of the Chemistry of Forest Products, Cellulose, and Pulp and Paper Making Processes.

THREE MONTHS' WORK IN A PULP OR PAPER MILL

Senior Year

	Hour		Hour
Electrical Engineering	5	Mechanical Engineering	5
Wood Technology III	3	Paper Making Fibers	3
Business Law I	2	Business Law I	2
Forest Chem. III, Cellulose	3	Pulp and Paper Mfg. VIII, Organization	2
Economics VII	3	Pulp and Paper Mfg. VII, Coloring	2
Pulp and Paper Mfg. VI, Pulp Testing	1	Pulp and Paper Mfg. X., Problem	3
Pulp and Paper Mfg. IX, Problem	1		
	18		17

Pulp and Paper Courses

Specialization in pulp and paper technology is not attempted during the first two years of the pulp and paper course since this work requires as a prerequisite the courses in mathematics, physics and chemistry as well as the elementary work in forestry, botany and wood technology. At the beginning of the junior year the student is given intensive instruction in papermaking. Approximately 20 per cent of the total work of the course is devoted to this subject. The work is divided into ten distinct courses, an abbreviated description of each course being presented herewith:

I. Technology—108 hours lecture work on raw materials, the pulp making processes, bleaching, beating, sizing, loading and coloring.

II. Technology Laboratory—216 hours laboratory work devoted to experimental demonstrations of the processes described in Course I.

III. Machinery—108 hours lecture work on the location and design of pulp and paper mills and on the construction and operation of pulp and paper mill machinery.

IV. Mill Analyses—108 hours laboratory work devoted to the preparation and analysis of chemical solutions to be used in the experimental pulp and paper mill described in Course II, and to

the analysis of recovered chemical products resulting from the operation of this mill.

V. Paper Testing—108 hours laboratory work devoted to the physical, chemical and microscopical examination of papers and fiber mixtures.

VI. Pulp Testing—54 hours laboratory work devoted to the testing of pulps for freeness, color, strength, bleach consumption, overbleaching, etc.

VII. Coloring—108 hours laboratory work devoted to the identification and strength testing of dyestuffs, the shade matching of colors on paper stocks, and the preparation and application of mottling fibers, color lakes, etc.

VIII. Mill Organization—36 hours lecture work on type organizations, administration, cost systems, mill records, job analyses, accident prevention, factory hygiene and the merchandising of papers.

IX. Problem—54 hours library work reviewing all available literature on some problem of interest to the pulp and paper industry, and in the preparation of a report on this investigation outlining laboratory work to be undertaken on some phase of the problem.

X. Problem—162 hours laboratory work devoted to experimental

SEMI-COMMERCIAL PAPER LABORATORY

Training Students of the Four Year Pulp and Paper Course to Operate a Modern Paper Mill

work on the problem studied in Course IX, and in the preparation of a report on the results of this original investigation.

Summer Employment

Each student at the College of Forestry who majors in the work of the pulp and paper course is required to spend at least six months in a pulp or paper mill as a prerequisite for graduation. The time of employment is optional with the student but it is usually distributed between the last two summer vacation periods. A comprehensive, carefully written report, describing the experience of the student, must be presented and approved by the college before credit will be allowed for this practical experience requirement.

The college attempts to locate mills for its students where practical experience may be obtained. These mills accept the students as laborers and they are put to work in any part of the mill where needed and are usually paid the going rate of wages for the class of work they perform. The cordial attitude of the New York State mills as well as those of neighboring states in assisting the college to place its students has been very gratifying. In several instances mills have stated definitely that these summer jobs really acted as probationary terms of employment and that the students could rely on permanent employment after graduation if their temporary services were satisfactory.

Graduate Work

The college offers graduate work in all its departments including that of the pulp and paper division. However, the college will not grant a degree to anyone who does not possess at least a general knowledge of forestry. Graduates of other institutions who have not had instruction in general forestry may be recommended for the degree of Master of Science on the completion of one year of satisfactory residence work providing they have at least one minor credit in forestry. A minor credit consists of six credit hours. Since thirty credit hours constitute the minimum requirement for a Master's degree, the major work of the graduate student may be elected from the work of the department of the college in which he is most interested.

The Hammermill Paper Company through their Chemical Director, Dr. Bjarne Johnsen, have established at the college a fellowship for the coming year (September, 1923-1924) to be known as the "Hammermill Fellowship in Pulp and Paper Manufacturing." The fellowship carries a grant of $1,200 to the recipient, who must be a graduate student at the college, his work leading to the degree of M. S. Burton L. Kassing, 105 Grove Place, Utica, N. Y., a member of the 1923 graduating class at the college, has been designated by the company and the college as the recipient of this signal honor.

Additional Contributions to Textbook Fund

Through the active interest in vocational education of B. T. McBain, assistant general manager of the Nekoosa-Edwards Paper Company, very material additions to the fund to complete the preparation of the textbooks have been received. Many of the companies listed among the recent contributors had previously subscribed through their connection with the Miami Valley Paper Manufacturers Association and the Wisconsin Traffic Association, and the amounts they have given represent additions. By present indications there is every likelihood that the required amount of $5,000 to complete the fund will be received.

Beckett Paper Company, Hamilton, Ohio	$ 25
Bergstrom Paper Company, Neenah, Wis.	20
Black-Clawson Company, Hamilton, Ohio.	100
L. L. Brown Paper Company, Adams, Mass.	25
Wm. Cabble Excelsior Wire Mfg. Co., B'klyn, N. Y.	100
Eastwood Wire Mfg. Co., Belleville, N. J.	100
Cheney Bigelow Wire Works, Springfield, Mass.	100
Combined Locks Paper Company, Appleton, Wis.	20
Consolidated W. P. and Paper Co., Wisconsin Rapids, Wis.	20
G. D. Jenssen Co., New York, N. Y.	25
Fitchburg Duck Mills, Fitchburg, Mass.	25
Grandfather Falls Company, Merrill, Wis.	20
Lindsay Wire Weaving Company, Cleveland, Ohio.	100
Menasha Printing and Carton Company, Menasha, Wis.	20
F. W. Roberts Manufacturing Co., Lockport, N. Y.	50
Marathon Paper Mills Co., Rothschild, Wis.	100
John Strange Paper Company, Menasha, Wis.	20
Thilmany Pulp and Paper Company, Kaukauna, Wis.	20
Wisconsin River Pulp and Paper Co., Neenah, Wis.	20
National Aniline & Chemical Co., Niagara Falls, N. Y.	100
Wolf River Paper and Fiber Company, Shawano, Wis.	25
Wrenn Paper Company, Middletown, Ohio.	25
Bird Machine Company, South Walpole, Mass.	$ 50
E. D. Jones & Sons Company, Pittsfield, Mass.	50
J. O. Ross Engineering Corporation, New York, N. Y.	100
The W. S. Tyler Company, Cleveland, Ohio.	100
S. D. Warren Co., Boston, Mass.	50
Brownville Board Co., Watertown, N. Y.	20
R. J. Dowd Knife Wks., Beloit, Wis.	25
Falulah Paper Co., Fitchburg, Mass.	25
Itasca Paper Co., Grand Rapids, Minn.	25

PULPWOOD DECAY AS AFFECTING PULP PRODUCTION*

By Otto Schierbeck, Forester, Price Bros. & Co., Ltd., Quebec, Can.

My paper is divided into three parts. I am first going to discourse on the effect of rotten wood in pulp and paper manufacturing and also the possibilities of the use of this rotten wood. Secondly, I am going to describe the rotten wood as we find it in the forest. Thirdly, I am going to propose a series of experiments which should be carried out in the forest and in the mills to get data for this our most important problem.

I owe my knowledge of the rotten-wood situation from the mill-end standpoint to Dr. Bates, of the Bathurst Pulp and Paper Company, and to Mr. Hawkins, chief chemist of Price Bros. & Co., Ltd., at the Kenogami Mill. It is the viewpoint of these gentlemen that I am stating here.

Dr. Bates, in his paper read at the Pulp & Paper Association's meeting in Montreal says:

When wood decays, softness and brittleness develop, and in the end the wood becomes entirely punky. This is serious on account of the wood fiber being more easily broken in paper-amking. Decaying wood becomes more sponge-like and, as a rule, will absorb more water. This has been noticed especially in pulpwood from the river end and from the block pile. For instance, balsam fir chips of brown color are often 5 to 10 per cent. higher in moisture than sound chips. This probably has more bearing on the chemical processes of cooking than is usually considered and creates a difference in cooking conditions which tends to protect the decayed portions.

Decay causes a loss of wood substance partly by the giving off of carbon dioxide and other gases, and partly by the formation of water and water-soluble substances which may be washed away from the wood or pulp. This loss in weight has a bearing on the percentages of the remaining constituents and the final results should be considered as closely as possible in terms of the original weight of wood before rotting. The action of most wood-decaying fungi seems to be a selective one, the cellulose being attacked while the lignin is left practically untouched. A serious result from the paper-making standpoint is, therefore, the partial loss of valuable cellulose fiber.

The amount of actual wood in a cord depends mainly on the destiny of the wood, balsam fir being about 20 per cent lighter than spruce, and decayed wood lighter than sound wood, depending on the degree of rot. The yield of pulp on the cord basis should, therefore, be discounted at the start in all cases where the wood shows a density lower than normal, whether this be due to species or decay.

In ground wood pulp we are concerned mainly with the physical quality of the product, and decay has a direct effect on the pulp. Discoloration of the wood is carried directly, resulting in poorer general color, together with dark shives and dirt specks. Softness and brittleness of the wood fiber make for ease of grinding with lower power consumption or more rapid production. On the other hand, the fibers are broken up less uniformly, giving a shorter average fiber length and more fine fiber.

Decayed wood gives a fairly high yield on the weight basis unless the whole mass of wood is considerably deteriorated. The extra losses are due to water-soluble substances and more fine fiber carried away in the white water, but their removal tends to equalize the quality with regular ground wood to some extent. However, the ground wood pulp still retains most of the qualities of decay which cause physical and mechanical difficulties in the manufacture of paper. The pulp foams considerably, the wet sheet is apt to stick at the couch roll and presses, the broke losses are higher and running qualities are poor in general. The finished paper is darker in color and shows more dirt specks, although the strength is fairly high except in folding. Another disadvantage is accelerated rotting of the ground wood pulp in storage.

In the manufacture of chemical pulp the brittleness of the wood causes a somewhat higher loss of sawdust and small slivers in the woodroom in connection with chipping. Cooking with chemicals dissolves away most of the decay and sterilizes the finished fiber. The purpose of each chemical process is the separation of cellulose fibers in a fairly pure state and any effect of decay on the physical form or chemical nature of the original wood fibers has a bearing on the final result.

The sulphite process is an acid treatment and may be considered the mildest cooking process with the least decomposition. To some extent decay is equivalent to preliminary digestion. The lower density of the wood gives a lower yield per cord with some disadvantage due to the lower capacity of a digester. At the same time the difference with decayed wood is usually not as great as between spruce and balsam fir. The discoloration of the wood is largely removed, although a yellowish tint may be present in the unbleached pulp together with more dark shives and dirt specks. The softness of the wood is reflected in the shorter average fiber length of pulp and more breaking up of the fibers in the beater. The greater absorbent power of decayed chips makes a difference in cooking conditions due to the higher moisture and in some cases the effect seems to be a prevention of overcooking of the decayed portions with a higher percentage of screenings.

If all the cellulose in the sound wood could be saved in cooking, the yield of pulp would be 60 per cent, but usually 25 per cent of the cellulose (mostly *gamma cellulose*) is dissolved and reduces the yield to about 45 per cent by weight of the wood. As decayed wood is nothing in gamma cellulose, the sulphite process gives a comparatively high yield on the weight basis. The main difference is that the finished pulp has a lower *alpha* cellulose content than pulp from sound wood, but in general the results are very much better than might be expected. There is nothing to show that the consumption of chemicals is appreciably higher than usual. In all results that have been reported the yields of screened pulp on the weight of the weight basis were equal to or only slightly lower than usual practice. The chemical treatment has largely cleansed the fiber of decay and the pulp is safe for storage. The consideration of quality depends on the grade of paper made. The pulp has good running qualities on the paper machine, but the finished paper is slightly inferior in color and cleanliness. The strength is only moderately reduced. For the manufacture of higher grades of product the conditions are not so favorable. Bleaching requires a somewhat higher bleach consumption and the result is apt to be below normal.

Conclusion of Dr. Bates

In the *ground wood processes* decayed wood gives a medium to high yield but the quality of the product is poor. This method of utilization should be discouraged except for low grades and where necessary for ordinary grades such as news print in small proportions up to perhaps 5 or 10 per cent. Long storage of infected ground wood should be avoided.

The *sulphite process* gives a comparatively high yield and the quality also is fairly good. This process is suitable for producing low and medium grades including news print sulphite and the proportion of decayed wood that might be handled to advantage is probably much higher than may be imagined in many mills. For higher grades, including bleached pulp, there are more limitations.

*Presented before Woodlands Section, American Paper and Pulp Association, at the annual meeting April 11, 1923.

The *soda process* gives a rather low yield and only fair quality. The disposal of decayed hard woods is, therefore, more restricted than is the case with soft woods by the other processes.

Conclusion by Mr. Hawkings

The facts seem to indicate that 10 per cent is a maximum figure for rotten wood. This, of course, if both ground wood and sulphite are supplied with wood from the same source. This raises the question as to whether it would be advisable to increase the amount of rot supplied to the sulphite, take a decreased yield and small change in quality and supply the ground wood mill with better wood and thus increase the general quality of the stock supplied to the paper mill. Carrying this further, it might be possible to use up a great deal of rotten wood in sulphite, as the parts badly affected disappear altogether in the process, leaving only true fibers, which is not the case in ground wood.

If 10 per cent of rotten wood were supplied to the mill and all this rotten wood were turned into sulphite, the percentage of rot would be approximately 25 per cent in sulphite runs, leaving absolutely sound wood for ground wood.

The policy of segregating rotten wood looks like a reasonable step. The operation will be costly and it will have to be looked into in more detail. The fact remains that the situation is not improving. The percentage of rot in the raw material available is ever increasing.

As you are aware, the budworm attacked our balsam trees in 1910. It killed from 25 to 30 per cent of the trees and left the remainder open to subsequent attacks by insects and fungi, which have done and are doing far more damage than the budworm itself did. The gravity of this attack is beginning to be understood —but I do not think that its seriousness is realized by those whose interests it affects so adversely. The result of these attacks is that we find all over our forests areas of varying sizes, covered with dead and dying timber. For the future, therefore, the great question for the forest engineer is salvage, and for the mill manager the utilization of rotten wood.

The mill people are quite ready to help us. It is, therefore, up to us to do our best to supply them with as good a quality of wood as the forest will allow. This can only be done by going carefully into the subject of rotten wood. First of all, we must organize in such a way that only rotten wood which can be used is piled at the river banks.

We want the mill people to use as much rotten wood as possible, and we will have to give it to them, but all the absolute culls which the jobber takes down to the river bank in the vain hope that they might escape the scaler's notice, must be left in the wood, they bring up the percentage of rot and do no good.

At present there is no uniform system in this matter—some cause all the rotten logs to be hauled to the river; others allow the jobbers to leave in the woods those logs which they think the scalers will reject, but in all cases far too much rotten wood is hauled to the river. If it is known that a log is too rotten to be profitably used at the mill it should be left in the woods, but on the contrary, it is a definite waste to leave in the woods logs which you know will pay to haul and drive.

Your scalers must be taught these things and then they must explain to the jobbers what may be hauled and what must be left.

In order to be able to do so we must carefully go into the matter of different rots. It is not enough to describe a rotten log as "hollow-rot," "red rot," etc., etc. The rot must be known by the causal fungi.

With the help of Dr. Faull, Toronto University, I have separated these rots into five distinct classes. I have had lantern slides made of log sections showing them and have pleasure in showing them to you now, also I shall circulate samples of the rots and their causal fungi. You will see that they are very easily distinguished and are quite different with regard to their effect.

There are four of these rots which affect balsam.

Pig Rot

Type 1 is called *Pig Rot*. It is caused by *Polyporus Schweinitzii* or *Polyporus balsameus*. It is a characteristic butt rot. Infection takes place in the roots or basal parts of the trunk. The decay starts in the heart wood but works outwards and eventually even the sapwood is involved. The trees become so weakened at the base that they become wind thrown, the break taking place in the lower part of the trunk.

Ordinarily this type of rot does not extend very far up into the stem so that some logs can almost always be cut from affected trees. The rotten parts of the tree are, as you see, very much discolored. It crumbles into powder form and is absolutely useless for pulp. Logs affected by this rot are always sinkers.

Feather Rot

Type 2 is *Feather Rot* which is caused by *Poria Subacida* and is also a butt rot. Infection takes place in the roots or lower portion of the trunk and works up, but usually for only a short distance, and several logs can generally be obtained from an affected tree. The heart wood becomes yellowish in color and pitted in concentric lines following the annual rings. The rings of the pitted wood separate one from another and the wood becomes more or less shredded. These trees are often wind thrown and when broken off this pitted or shredded wood may be seen sticking up rather like the bristles of an old broom.

This rot is mostly responsible for what is generally known as "hollow rot" and when trees affected by it become dry they are extremely inflammable and when present in large numbers, seriously increase the fire danger in log pile.

It does not seem to affect the color or strength of the paper and very few logs with this rot are sinkers.

Hemlock Rot

Type 3, *Hemlock Rot*, is by far the most common and dangerous of all the heart rots of balsam and is, in my opinion, causing more damage than any other fungus in the forest. It is costing Canada millions of dollars every year. The causal fungus is unknown, but is being closely investigated.

This rot enters the weakened tops or by way of dead branches in the lower part of the crown. It works down the trunk ard it is quite common to see an attack from the top going down 15 or twenty feet, then disappear and further down the trunk to find another attack originating in a broken branch.

The reason why this fungus has spread to such an enormous extent is, in my opinion, that there are such a large number of dead tops left by the budworm, which has killed the tops by defoliation. When this takes place the side branches try to take over the role of top but are frequently again destroyed by the budworm, so that a number of dead tops are to be found on the trees. These dead tops are excellent points of attack for fungi and, as I already said, they have undoubtedly assisted to spread the disease. The affected wood turns dark brown and on a cut, especially when wet, closely resembles the heart of hemlock, hence the name. This affected wood is, to greater or less extent, mottled by patches which for a time remain sounder than the surrounding areas.

The fibers of the affected wood appear to remain intact for a longer period than in the case of butt rot, so that in the early stages of decay, it would appear that a considerable amount of wood affected by this rot might be utilized in your mills, experiments to decide to what extent this wood is unusable should be commenced at once.

Sapwood Rot

Type 4, *Sapwood Rot*. This is caused by a number of fungi of a lichen-like appearance and is only found in dead trees. Most

of this rot disappears in the barkers and does not, therefore, adversely affect the pulp. The wood inside the sapwood is usually sound except in some cases, where it is affected by the blue stain timber fungus which discolors the paper and might also spread in the woodpile and cause considerable damage as this fungus spreads with great rapidity.

These are the four rots commonly found in balsam and they should be studied by and known to every superior official in the pulp and paper business.

The fifth type of rot is found in spruce and is caused by *Trametes pini*, and is responsible for practically all the rot in spruce. It may be found in any part of the trunk. In its action the causal fungus first dissolves out the lignin in spots, leaving areas of bleached cellulose threads. In the earlier stages of decay the wood affected by this fungus is usable for pulp.

I hope I have not tried your patience by going too much into detail on this question, but as I said before, it is of such vital importance to you that no apology should be necessary. You must give this matter more attention. I confess that I cannot understand how you business-like, hard-headed Americans, who in your mills are the last word in efficiency and who are prepared to spend many thousands of dollars in inventing labor-saving devices and analyze with minutest care your raw chemicals, etc., etc., can go along as you have been doing and neglect the greatest of all—in fact, your only real raw material—your wood!

The problems which should be solved through experiments are:

First. The inadvisability of cutting down chicots. A chicot is a dead stub. The practice is different for each company. Some companies demand all chicots cut down, some companies leave them standing, some leave it to the judgment of the jobber, etc. Felling experiments should be started in order to find out how many usable logs these chicots give. A method of trying the chicot by sounding and notching it should be developed.

Secondly. The advisability of laying off pulp logs in different log lengths. Very often a 13-ft. log is culled because it shows rot in one end. By cutting the log down to 8 ft. it might be perfectly sound. The experiment should give information in regards to the amount of wood saved by using different log lengths. They should show the increased cost, both in regards to logging and in regards to scaling. In my opinion, log lengths of 12 and 4 ft. would suit the purpose, so that whenever possible the logs be led off in 12-ft. lengths, and then the rest of the wood laid off in 4-ft. lengths and measured in cords.

Thirdly. Floating experiments should determine the percentage of sinkers for the different kinds of rots. This experiment should be carried on by booming the selected logs in a suitable place. The logs should all be numbered, described and kept tab of.

Fourthly. Experiments should find out how the different rots spread and aggrandize in the wood piles at the mill. I do not hesitate to say that this factor is much more important than it is expected, especially in the case of the sap-root and the blue stain timber fungus.

Fifthly. Experiments should find out the effects of the different rots on the paper in regards to yield, strength, and color. This problem must be taken up by the technical staff in the mill in cooperation with the logging department.

To Sell Hoboken Paper Mills Co.

NEWARK, N. J., July 23, 1923.—Equity receivers of the Hoboken Paper Mill Company desire to sell the concern's property at Rossman, Columbia County, N. Y., at public auction.

Wall, Haight, Carey & Hartpence, attorneys for the receivers, William C. Ridgway and Herman Ringel, yesterday obtained an order from Federal Judge Runyon directing stockholders and creditors to show cause July 30 why the plant should not be sold. One of the principal creditors is the Second National Bank of Hoboken, as trustee of a $300,000 second mortgage.

Testing Machine for Jacquard Stock

In the manufacture of silk, or any textile, a large part is played by paper, for the pattern woven in the goods is developed by means of cardboard cards through which holes have been punched in accordance with the lines of the design. These are called Jacquard cards, named so for Joseph Maria Jacquard, the inventor, who discovered the process. They operate in the loom somewhat similarly to the punched roll on the player piano.

It is necessary for the manufacturer who has Jacquard cards cut, however, to make sure that the cardboard will cut cleanly and

MACHINE FOR TESTING JACQUARD STOCK

easily and that the paper stock is of good quality, for a set of cards for one particular pattern often costs many hundreds of dollars.

The United States Testing Company, Inc., has developed a test to determine the punching resistance of cardboard stock for Jacquard cards, in pounds per square inch. This instrument, which is illustrated above, is rated on a quarter inch plunger and may be attached to the Mullen Gage Tester or any similar machine that is operated by hydraulic pressure. The results obtained from a punch resistance test aid in determining the pressure necessary to operate a punching machine when perforating Jacquard cards and may be similarly used for leather or any material punched with a die.

No Change in Price of Finnish Paper and Pulp

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., July 25, 1923.—A report to the Department of Commerce on the Finnish pulp and paper industry says that no changes were made in prices quoted by the association mills on bleached and unbleached sulphite, kraft pulp, ground wood, kraft paper and news print during the second half of June. The Kymmene Aktiebolag, which controls about 30 per cent of the total Finnish paper production, announced a reduction of 200 marks per metric ton on news print for this period.

TECHNICAL SECTION, PAGE 36

"THE MODERN PAPER PLATER DRIVE"

A. F. PAIGE, SALES ENGINEER, WESTINGHOUSE ELECTRIC & MFG. CO.

Paper platers are used to produce linen or other special surfacings to sheet papers. The sheets are stacked in a book between sheets of zinc, linen, cardboard, etc., depending upon the surface desired. The complete book is placed between thin metal covers. The finish is applied to the paper by the pressure of the rolls when passing the book back and forth between them. This is usually effected by reversing the direction of rotation of the plater rolls.

The modern paper mill uses individual electric drives liberally and obtains thereby greater production per machine at less labor, power and space cost. The individual electric motor drive eliminates expensive belting, countershafts with their disagreeable oily bearings, etc., and permits more effective lighting, thereby improving health and morale of operators and reducing wastage.

The more common types of plater drives are the belt drive and the individual motor drive. Both of these drives are usually reversing. The motor used with the belt driven plater requires no special consideration. The constant reversals, however, are unusually severe on the belts, causing them to be short lived. Further, the belt slippage upon reversal is considerable and involves the absorption of quite a bit of energy and the loss of time. One example of the belt driven plater is shown in figure No. 1.

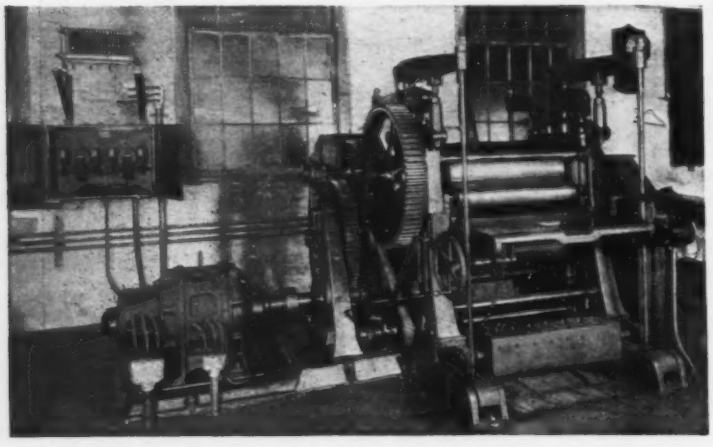


FIG. 2

To eliminate belts, countershafts, oil bearings, etc., of the belt driven plater, there was devised the individually motor driven plater as shown in figure No. 2. This drive is simple, rugged and compact. The phase wound reversing motor has high torque characteristics. It is mounted on a bedplate common to the plater and coupled to the plater pinion shaft. The external rotor resistance assists in keeping the motor cooled by dissipating outside of the motor much of the heat of the reversal. The control sonsists of three units, viz., a three position master switch, a cabinet enclosed contractor panel, and an oil circuit breaker primary switch. The small drum controller, or master switch, with one forward, one reverse and one off position is mounted on the end of the plater table with a short piece of flexible conduit attached to allow the table to be raised or lowered. The length of travel of the switch handle is very short, and, therefore, does not tire the operator's wrist. This master switch controls the two magnetically operated contractors of the contractor panel. The contractors are mechanically interlocked, one furnishing power to drive the plater forward, the other to drive the plater in the reverse direction. Consequently, the control is extremely simple.

TECHNICAL SECTION, PAGE 37

The oil circuit breaker is used to disconnect the control circuit from the power source and functions to protect the equipment from extreme overloads.

As the duty of the reversing plater drive is rather heavy, the equipment is made rugged to withstand this type of service. Ordinarily, the plater will be reversed from 10 to 20 times a minute, but when starting to plate a thick book that is full of air, the reversals may reach a frequency of 30 to the minute.

The paper mill in which the Norwood Engineering Company equipment of figure No. 2 is installed, increased its production on this plater by 20 per cent, after the replacing of the belt drive by the reversing motor drive. The shorter time of reversal and the increased speed of the rolls made possible by direct motor drive permitted this increased production. This 36" plater having 17" diameter rolls and operated at 20 rpm plates 72 books of very high grade bond in 2½ hours at an energy expenditure of 10.8 kw. hours. The books consisted of 125 sheets each, 28"x34" of 41 lb. paper.

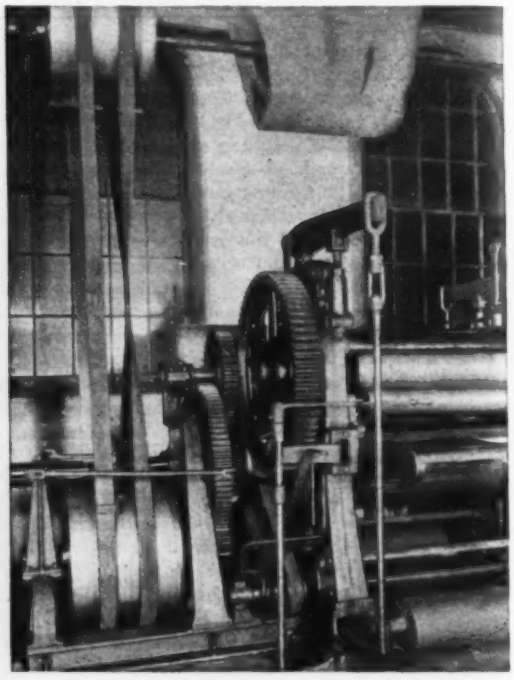


FIG. 1

Belgo-Canadian Co. Incorporates

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, July 23, 1923.—Letters patent have been issued incorporating the "Belgo-Canadian Paper Company, Limited." The total capital stock of the new company is placed at $13,500,000, divided into 135,000 shares of $100 a share. The head office of the company is to be in Montreal.

The company is given authority to aid, by loaning money or otherwise, the settlers or intending settlers on its land and to establish, maintain and operate electric light and power services in certain counties.

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APPRAISALS AS A FOUNDATION FOR PROPERTY RECORDS*

By L. H. Olson, Vice President American Appraisal Co.

I consider it a pleasure and a high privilege to have the opportunity of outlining some though and suggestions in reference to the use of appraisals before a group of accountants such as are here represented.

Preliminary to any discussion of the applications of appraisal service, it seems to me desirable that we have a mutual understanding as to what we mean by appraisal service and what we as appraisers aim to create as a standard for such service.

In carrying appraisal service forward to its greatest utility in connection with sound constructive business, it is necessary that we have the co-operation and intelligent understanding of our accounting friends.

Appraisal Service

In the quarter century or more that appraisals have been a factor in American business, they have been improved and expanded to an extent that has brought them recognition as one of the important factors in it.

Valuations of property have, of course, been made from the earliest time. Historically, to appraise and to value have been more or less synonymous. Even today the English term is "valuer." We say "appraiser."

An appraiser works chiefly from the properties themselves (in distinction from an accountant who works chiefly from the records), in determining their extent, character, utility, investment, value and depreciation, and prepares the results of this investigation and research in such manner as to make possible its practical application to administrative problems, plant and cost accounting, industrial engineering, financing, purchase and sale, litigation, rate-making, public utility regulation taxation and other purposes.

It has only been in recent years that a more elaborate and exacting technique has revolutionized appraisal work with the purpose of making it somewhat more of a science and somewhat less an expression of personal opinion.

In the evolution of this modern service, one of the principal distinctions which has arisen is that between "opinion values" and "appraised values."

Opinion values are those which are based upon the personal opinion of an individual and are arrived at in accordance with his experience and best judgment. Such a valuation has a legitimate use and may be of the greatest accuracy. It must, however, be accepted on the authority of and the confidence in the individual; and is not, generally speaking, capable of proof. As opposed to opinion value, the appraised value is arrived at through the co-ordinated work of trained appraisers, using statistical data, cost analysis formulæ, standardized forms, methods, and standards of valuation under experienced executive control, insuring the establishment of the results in accordance with well authenticated and tested standards and maintaining uniformity in provability of value throughout.

It is our endeavor to establish appraisals on a scientific basis whereby a complete composite property will be analyzed into its various component elements and reconstructed in terms of costs and values based upon such standardized methods, authentic statistical and analytical data, and anlyses of business conditions as will insure logical explanation and provability of the results.

Appraisal service to be permanently successful and to establish and mainttain the confidence of business must be rendered on a scientific basis. In practice it must be governed by the same rigid requirements and established technique as govern the best engineering and accounting practice.

In this, you, as accountants, have some responsibility—a responsibility in proportion to your influenece. You have the advantage of your traditions, your regulations, your organizations and your established ethics. As appraisers our best ethics and technique are no less high, but we lack the tradition and organization to promote uniform practice.

For your own protection, for the benefit of your clients and as a contribution to better business you should insist on and use your influence in favor of the best appraisal service. This is a call to you with your great influence to support that which is best in appraisal service, and thereby benefit yourself, your clients, and the promoters of better business.

Value

It is obvious that the establishment of value involves the investigation and analysis of factors other than the determination of the reproduction cost and the physical depreciation of the property. The term "value" itself is difficult to define in the light of the divetrsified present business requirements. Broadly speaking, "value" is a term used to indicate comparative desirability. Desirability is usually predicated on utility.

I might refer you to an extensive literature on the definition of "value," including the standard dictionaries, books on economics, finance and accounting, definitions by legislatures, courts, public

*Address given before American Institute of Accountants.

service commissions, security commissions, the regulations of the Internal Revenue Department and other authorities.

Some of the values you find referred to or defined are market and cash values, going concern value, liquidation value, book value, value for rate making, value for invested capital, value for depreciation and depletion, and values for other special purposes.

The first evidence of value is the property itself which is always an existing indisputable fact. The value of this property will vary in accordane with fluctuations in the market prices of the various elements of which the property is composed and with its physical condition and utility.

Appraised values may be determined on the basis of the actual investment or the cost of reproduction, modified by the depreciation accrued in accordance with the age, condition, remaining expectancy of life and utility of the particular property.

It, therefore, becomes evident, that the valuation of property is an appraisal whether the valuation be in terms of the actual investment, normal costs equivalent to the investment, normal costs as of a particular period, average costs over a term of years, or costs at the current or any other specified date.

From the investment or reproduction costs upon whatever basis, must be deducted allowance for physical depreciation, inadequacy, and absolescence as determined through an examination and study of the particular properties, the conditions under which they are operated, and the purpose for which they are being used, their environment and the advance in the art of similar construction and equipment.

In the appraisal of an industrial plant, for instance, the following are some of the factors which affect its utility and consequently its value and are therefore analyzed and studied by the appraiser: Its location in reference to raw materials, market, transportation, availability of labor; its layout as regards storage of raw materials, and finished product, routing of the work in process, transmission of power, fire protection the relationship of the departments and equipment with the departments, plant communication and transportation systems; the character and design of the construction and equipment as compared with the most modern, improved developments, and the business conditions affecting the locality and the industry.

The appraiser must always bear in mind that certain properties are well adapted to a variety of uses. A building, for instance, may be just as suitable for a shoe factory as for a machine shop. Other properties are adapted only for certain types of industry, while much property such as special tools, patterns, and drawings is of value only for use in connection with the production of a certain type of product. It is evident, therefore, that the use to be made of a property and the type of product to be produced may have a very important influence on the value. The manifestations and variations by which value is recognized and measured are numerous enough to fill many a volume. Suffice it to say here that their consideration is an essential in the determination of value and that it is the task of the appraiser to select and study those which are necessary to arrive conclusively at a value for a specific purpose.

The accountant has varying opinions as to the nature of the value, or we might say the basis of values to be used for plant accounts and for the depreciation entering into cost systems. But whatever be the basis you select, and whether the property records be in the form of ledger plant accounts, departmental accounts, or production centers for a cost system, they should state the facts as evidenced by the properties to which they refer. Even in the face of this, however, I do not believe that I exaggerate when I state that of all the accounts in the ledger or on the balance sheet, the plant accounts are under the least control.

Appraisals of New Properties

I take it that we will agree on the premise that property records whether they be in the form of Ledger Plant Accounts, Departmental Accounts, or Production Centers for a cost system should state the facts as evidenced by the properties to which they refer.

I believe it is sound business practice and will ultimately prove to be in the interest of economy to have appraisals of new property in order to test the investment and allocate the cost and values to the proper accounts and sub-divisions in accordance with the detailed supporting records furnished in the appraisal report.

Let us give a little consideration to the advantage of this procedure. The total investment in a new industrial property is recorded in the form of contracts, invoices, payrolls, and cash expenditures for various and sundry purposes. Some of these records cover specific items, some include a large group of items of which the individual parts are not particularly specified; while still others involve unidentified, undistributed expenditures. As a consequence it is impracticable if not impossible to correctly allocate the total cost to the various property accounts desired. At best even though these expenditures are reasonably distributed between the respective plant accounts there is not test as the adequacy of this distribution, the reasonableness of the total cost or the detailed substantiating data balancing with the respective accounts.

As opposed to this condition, consider an instance where the investment in the new property is tested by a detailed appraisal of the property, which will prove the investment, and support the amount allocated to the respective plant accounts with the detailed priced inventory. Such a procedure is in accordance with sound business practice and sound accounting methods, and furnishes a substantial foundation for carrying forward the plant accounts in the future. It eliminates any misunderstanding as to what classes of property are charged into the respective accounts or what original costs, deductions and changes should be credited or debited to each. Only through such a method can you properly allocate your cost to the details of construction, heating, lighting, freight, installation, general equipment, special tools, patterns furniture fixtures, etc.

The expense of starting right through the use of an appraisal is so small in comparison with the immediate permanent benefit resulting that it hardly seems worthy of consideration. In any property investment of importance, architectural and engineering advice is retained to plan and direct the work to a satisfactory conclusion—this at a cost of from 5 per cent to 10 per cent of the investment. Why should it not be the general practice to complete the records, test the investment, and allocate and preserve in permanent form the records of the properties and their costs in detail, summarized in a form to meet the full plant and cost accounting requirements, at an additional cost that will seldom exceed one-half of one per cent of the total investment.

Control of Plant Accounts

I think it is a safe statement to make before a group of accountants, that of all the accounts on the balance sheet, the Plant and Depreciation accounts are under the least control. As a part of a periodical audit, practically every other account is tested against the original evidence; the cash account against the cash on hand and in the bank; the accounts receivable and payable against the accounts on the vendor and vendee, but the plant and depreciation accounts are only tested as to their mechanical accuracy and conformity with correct principles of accounting.

From the very date a property is constructed, equipped, or acquired and the accounts are established, there is a tendency for a continuous divergence between the information as shown by the accounts and the facts as evidenced by the properties themselves. Let us suggest just a few of the reasons for this divergence:

1. The original set-up, even though the exact total investment may be known, may represent approximations in the allocation to the respective accounts, departments, or other accounting divisions.

2. Large expenditures for reconstruction work involving removable property, remodeling and betterments, may be incorrectly charged as between expense, depreciation and betterments.

3. Materials, labor, and overhead charges going into plant betterments may have been currently charged to expense.

4. Property may have been removed without proper charges to the plant accounts.

5. Property units may have been replaced with units involving a larger investment without proper adjustment in the accounts.

6. Depreciation charges may not have been maintained consistent with the changes in and exhaustion of life of the property units.

Cost Systems

If an appraisal of a new property is desirable and important for establishing and maintaining plant accounts, how much more desirable it is as a foundation for the usually more specific departmental or production center accounts for cost finding purposes.

I believe that an appraisal is an absolute essential as a foundation for an accurate cost accounting system. This may appear to be an exaggerated statement, but there are three definite reasons in support of it:

1. In no other manner than through the testing of the cost or investment against the property units is it possible to allocate the investment in accordance with the actual properties used in the respective manufacturing processes, departments, or production center divisions.

2. Without such a detailed segregation of the property and investment, it is impossible to accurately determine the depreciation and other fixed charges to be made to the respective manufacturing operations and different types of products manufactured.

3. The subject of maintenance, renewals and depreciations are so inter-related that without the sub-divisions and analysis above referred to, it is impossible to get the total cost for these expenditures correctly and uniformly allocated into production costs for the respective periods of time and the classifications of products into which the cost system is subdivided.

The purpose of property records, whether it be for plant or cost accounting or other purposes, is to have an accurate account of the properties which will balance with them as they exist as of a current date. The plant properties are subject to continuous change, due to their development or alteration to meet the incheasing or changing operating requirements and also as a result of depreciation, renewals, abandonment, etc.

Variations in value result from changes in market conditions—the rise and fall of prices for the materials and labor which are component parts of the property. Such changes must be taken into consideration in the handling of insurance, in financing, in credits, mergers, sales, liquidations, and elsewhere.

Depreciation

One of the most intricate and abused factors affecting the plant accounts, balance sheets, and Profit and Loss Statements is that of depreciation. It is a recognized fact that properties depreciate and that such depreciation should be carried into the accounts and into the cost of the products or the determination of profits.

Depreciation is a loss or lessening in value from a predetermined basis as a result of deferred maintenance and a lessening in remaining serviceable life. The basis upon which depreciation is considered, may be the original cost, the cost of reproduction at a given time, current date, or average prices over a given period.

Depreciation is a measure of value reduction and is not wholly or necessarily a measure of physical condition or productive efficiency.

Depreciation of physical properties is practically continuous. The results of depreciation may be offset in whole or in part by renewals and repairs. Depreciation is the effort of and is influenced by time, exposure, location, atmospheric conditions, chemical reactions, hours and condition of use, changes and development in the business and advance in the applied arts and sciences. These influences would depreciate the value of property in a comparatively few years if their effect were not offset by continuous and periodical repairs, renewals of parts, and replacements of important units of property.

The determination of the rate at which the properties depreciate requires a careful study of character, location and the use of the properties as a part of the appraisal which will show the cost in accordance with the type and classifications of property. To establish a correct rate of depreciation to be applied to an accounting system requires an understanding and analysis of the method of handling the expenditures for those renewals and repairs which offset depreciation.

The determination of the rate of depreciation should be consistent with the specific property and with the particular system of accounting. To illustrate: The property covered by a machinery and equipment account may depreciate at the rate of 12 per cent per annum, but at the expiration of twenty years may have only a total accrued depreciation of 25 per cent, as a result of the renewals and repairs. In accounting practice certain classes of these expenditures, such as renewals of tools, belts and minor equipment may be charged directly to expense, and the renewal of more costly items may be debited to the depreciation reserve.

The determination of rates of depreciation to be used in connection with an accounting system should be based upon a careful study of the properties and their operating condition and should be made in accordance with definite specifications governing a method of treatment of plant expenditures for renewals and repairs in the accounting system.

Retrospective Appraisals

It is doubtful whether we can have a better demonstration of the inadequacy of plant accounts of the average corporation than has been evidenced by the difficulty which has been encountered in determining the invested capital and depreciation for Federal Income Tax Returns.

Where accounts for any reason whatsoever have not been kept in balance with the properties, their reconstruction to protect or promote the interest of both the tax-payer and the government requires retrospective accounting and appraisal service.

Retrospective appraisals as defined by certain formal statements of the Treasury Department are in principle not much different from the appraisal work being done in the valuation of the railroads for the Inter-State Commerce Commission, the valuation of public utilities for Public Service Commissions, and the appraisal of industrial or other properties for purely accounting purposes. Under the provisions of the Revenue laws and regulations, however, this specific service is somewhat more definitely defined. The testing and adjusting of the accounts against the actual properties in existence and the measuring of those properties in the terms of costs and values as prescribed by the Revenue law requires the following:

1. An analysis of the property records and plant accounts for bringing to light all evidence as to the dates of acquisition, descriptions of property units, and the original costs as an evidence of the cash paid into the business.

2. An itemized inventory of the property with a proper description of the various units.

3. A reconciliation of the analysis of the property records and accounts with the property inventory, and the allocation of the dates and costs to the various property units.

4. An historical investigation of the properties to verify and supplement the accounts, to permit the allocation of group costs to the individual property units, to eliminate from the accounts costs of properties discarded or abandoned, to locate property not capitalized in the accounts, to identify a property paid in as of a given date, and to determine dates of renewals or improvements.

5. Authoritative statistical and analytical recorded costs and price data on a great variety of materials, equipment, labor and overhead costs, over a wide extent of country and a long period of years.

6. Mortality tables on the expectancy of life of property units,

and practical experience and judgment to apply these to particular properties in the light of their location, construction, equipment, and operating conditions and character of maintenance.

7. A knowledge of the Revenue Laws, Departmental Regulations, Decisions and Rulings and an ability to interpret and summarize these in accordance with the appraisal practice and the procedure of the Internal Revenue Department.

Balance Sheet and Profit and Loss Statements

Whether appraisals should be made on the basis of the investment, current values, or other market conditions involves consideration of the accounting procedure, and the purposes for which the appraisal reports are to be used.

Almost inevitably in every industrial enterprise there will come a time when an exact accounting must be made of the property investment and values. An appraisal may be required on both the investment and the current market basis.

In the above discussion, we have referred particularly to the establishment of the property accounts on the basis of appraisals made in accordance with the actual properties as they exist as of the date of the appraisal. The carrying of the accounts forward in accordance with the correct allocation of the subsequent expenditures of the property and in harmony with the actual changes in the properties resulting from these expenditures and other changes in the properties not resulting from recorded expenditures, is an equally important phase of the problem.

In a preceding statement I have said that of all of the accounts on the balance sheet, the plant and depreciation accounts are under the least control. You are familiar with the uncertainties in ordinary accounting practice in the handling of expenditures on, the changes in, and the depreciation of plant properties. You know how many times the bookkeeper asks if he shall capitalize, or expense a change, renewal or improvement. It is frequently a compromise or a guess. Sometimes the decision is governed by the company policy of erring on the side of expensing in profitable periods and on the side of capitalizing in lean periods. Frequently a correct treatment requires an analysis of the property changes and conditions, and a careful intelligent distribution of the cost as between depreciation reserve, expense, and capital entries; such a chance for instance as to where an alteration and improvement involves changes and enlargement in a building, the scrapping and adding of boilers and changes and improvements in other power equipment, requires that the expenditures be tested against the properties as they were before and after the expenditure.

It is not necessary to impress upon you the fact that all such decisions in reference to the treatment of a plant expenditure or a depreciation charge have a direct effect on the balance sheet and the profit and loss statement.

It is not infrequent that the treatment of the plant and depreciation accounts alters the entire character of the Balance Sheet and Profit and Loss Statements, and that most of such statements possess a factor of error on account of the improper distribution of plant expenditures and the failure to balance the accounts against the properties.

I am of the opinion that as this condition becomes better understood, the commercial bankers in the granting of short term credits and in their business contacts with their customers will lend their moral support to, and differentiate in favor of, those customers having their plant accounts established and maintained in accordance with periodical or continuous appraisal service.

Resumé

In this brief review of the appraisal subject, I have given a specific, even though a necessarily brief, review of the application of appraisal service to plant and cost accounting, income tax requirements, and financial statements.

I have referred only briefly to the fundamental characteristics of procedure and presentation that should distinguish the character of the appraisal service that I hope you gentlemen in your business and professional activities will insist upon and use your influence in encouraging.

Consideration for your time will only permit me to refer to the use of appraisals in connection with the administration problems of plant operation, insurance, stock and bond issues, mergers, receivership, liquidation, amortization, condemnation proceedings, and many other requirements imposed by modern business conditions, but if my words have added a little to your knowledge, or stimulated your interest in the preparation and application of appraisals, I am well pleased.

Wage Payments

A circular letter containing the following questions was recently despatched by the Cost Association to its members:

1.—What is the method of wage payment used in your mill?

2.—Can you please describe very briefly how the labor costs are accumulated:

(a) For payroll purposes.

(b) For cost accounting purposes.

3.—In case there are variations in the labor costs on individual units of production, due to bonus or premium being earned in some cases, and not being earned in others.

(a) How do you determine the labor charge to be made to the product, and

(b) How do you dispose of the differences which may remain in payroll account?

4.—If there are any special points or problems in your experience, I should be very glad to hear of them.

Already a number of very interesting replies have been received to these questions. A report containing copies of all replies received (without of course, mentioning the names of mills from whom received), will be sent to all mills who have assisted in its compilation.

Members who have not yet attended to this matter are urged to reply as soon as possible. Replies should be sent in at any rate, not later than July 31.

This is a subject of supreme interest to cost accountants in the industry, and they should not fail to do their part in making the report as comprehensive as possible.

John Carroll Leaves Port Alice

[FROM OUR REGULAR CORRESPONDENT.]

PORT ALICE, B. C., July, 10, 1923.—The residents of Port Alice held a farewell social as a send off to John Carroll, who has been resident manager for the Whalen Pulp and Paper Mills, Ltd., at Port Alice plant during the past eighteen months.

The entertainment consisted of dancing, songs and recitations which were enjoyed by all. Among those who sang were Mrs. McRae, C. Mills, P. McGhee, A. Watson, and Mr. Stuart, and Mrs. T. Millard gave some pleasing recitations.

In the course of the evening a speech was made by J. J. Needham in which he thanked Mr. Carroll on behalf of the community for his many kindnesses and the interest he had displayed in the welfare of Port Alice during his residence here. Mr. Carroll, in reply thanked the citizens of Port Alice for their co-operation during his residence here and stated that his success as resident manager was due more than anything to the loyal support of the Port Alice employees. Mr. Carroll was presented with a fine club bag by the heads of the departments in token of their esteem, and during the past week he was also presented with an engraved silver shield by the school children of the town with whom he has always been a great favorite.

Mr. Carroll is leaving Port Alice to take charge as general manager of a two hundred and fifty ton mill in the middle west, in which he is interested.

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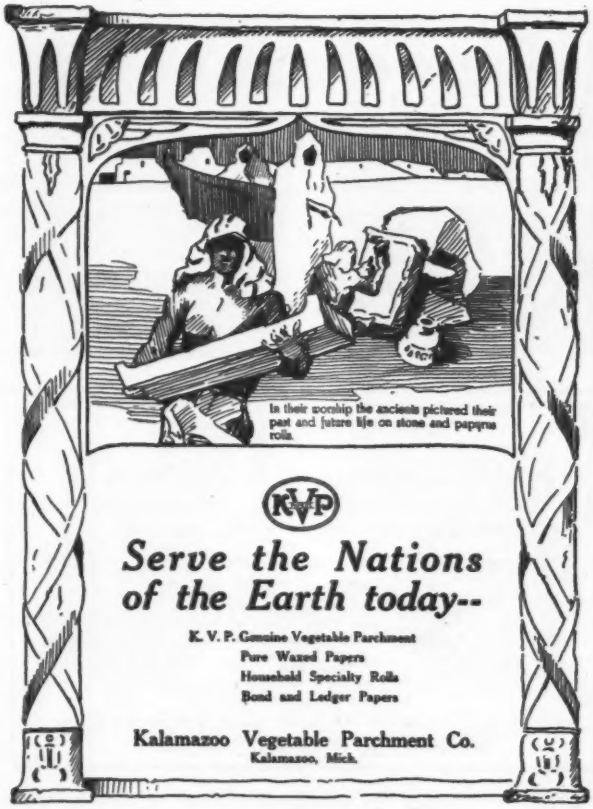

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Bids and Awards for Government Paper

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., July 25, 1923.—The Government Printing office received the following bids for 41,600 lbs. India tint coated cover paper, 26½ x 41: The Whitaker Paper Company, $0.094 per lb.; Garrett-Buchanan Company, $0.0937; Maurice O'Meara Co., $0.10; Reese & Reese, $0.0957, f. o. b. Wash.; The Broderick Paper Co., $0.0938; Dobler & Mudge $0.0959; Barton, Duer & Koch Paper Company, $0.103; Mathers-Lamm Paper Company, $0.099; R. P. Andrews Paper Company, $0.0967 and $0.095; Thomas Barrett & Son, $0.1065; T. A. Cantwell & Co., $0.097.

The Printing Office will receive bids on July 27 for 78,000 lbs. (1000 reams) of 38 x 48—78 of white writing paper. Bids will also be opened on same date for 800 lbs. (100 reams) of 20 x 30—8 white tissue paper.

The Government Printing Office has received the following bids for 3,400 lbs. blue glazed bond paper No. 9; 1600 lbs. 21x32 and 1800 lbs. 22 x 34: The Whitaker Paper Company, $0.30 per lb., Dobler & Mudge, .28 (Minimum 4000 to 4500 lbs.), R. P. Andrews Paper Company, $0.265 (Minimum 4000 to 4500 lbs.), and $0.22, Reese & Reese, $0.2345 f. o. b. Wash., Old Dominion Paper Company, $0.249.

The Government Printing Office also received bids for 37,830 lbs. White Ledger Paper, various sizes: R. P. Andrews Paper Company, $0.35 per lb.; The Whitaker Paper Company, $0.3111; Old Dominion Paper Company, $0.399; Carew Manufacturing Company, $0.284; Dobler & Mudge, $0.27 (air dried); Reese & Reese, $0.27615 G. P. O. and $0.27575 f. o. b. Wash.

The Bureau of Engraving & Printing has received the following bids for 150,000 pounds of check paper: Whitaker Paper Company, at $0.2287 per pound; Dobler & Mudge, $0.19½; R. P. Andrews Paper Company, at $0.21½; Lindemeyr & Harter, $.1803; Southworth Company, $0.30; Old Dominion Paper Company, $0.26999; and Mathers-Lamm Paper Company, $0.189.

The Bureau has also received the following bids for 2400 reams of wax paper: Whitaker Paper Company, at $0.958, $0.0931, $0.1032 and $0.1068 per pound; Dobler & Mudge, at $0.1064; R. P. Andrews Paper Company, at $0.1065 and $0.1155; Mathers-Lamm Paper Company, at $0.1158 and $0.108; National Wax and Paraffin Company, $0.10¼; Kalamazoo Vegetable Parchment Company, $0.11; Hamersly Manufacturing Company, $0.10¾; Newark Paraffin and Parchment Company, at $0.10½; Cater, Rice & Co., $0.114 and $0.112; New York Paper Company, $0.11¾; Samuel S. Alcorn Company, $0.1048; and Old Dominion Paper Company, at $0.1308.

The Purchasing Officer of the Government Printing Office will receive bids on July 30 for 160,000 lbs. (64,000 sheets) of Number 2 quality, 25 x 38, No. 20 Binder's board. Bids will also be received on the same date for 40,000 lbs. (28,000 sheets) of 28½ x 34—No. 35 box board.

The Bureau of Supplies & Accounts, Navy Department will receive bids on August 14 for 75,000 rolls of toilet paper for delivery at the Mare Island, Cal., navy yard.

The Osborn Paper Company has been awarded the contract by the Bureau of Supplies & Accounts, Navy Department for furnishing 650 reams of 16 x 21—20, white printing paper to the Brooklyn navy yard at $1618.50, bids for which were opened on July 10.

Dells Paper Co. Gets Timber Rights

APPLETON, Wis., July 23, 1923.—The Dells Pulp and Paper Company has acquired the timber rights to a large tract of land owned by a railroad company near Hurley, Wis. The consideration is said to be $70,000. The paper company has the right to all timber except cordwood on the property.

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EXCELSIOR WIRE MFG. CO.

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Incorporated 1870-1896

Manufacturers of Superior Fourdrinier Wires
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Best Quality of Wire Rope.

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Perforated Metal Screens
For Pulp and Paper Mills

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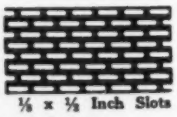

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The B Co. INC.

QUALITY PULPS

HAFSLUND NORWAY

"HAFSLUND BEAR"
Bleached Sulphite

F:HAGA

"FORSHAGA"
Bleached Sulphite

A.B. MÖLNBACKA-TRYSILJ KI SWEDEN

"KLARAFORS"
Easy
Bleaching Sulphite

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Incorporated
200 FIFTH AVENUE NEW YORK, N. Y.

Clay
300 Tons daily

Satisfactory deliveries of the ***clay*** you prefer at prices you will consider reasonable—such is M-E service!

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THE MINER EDGAR CO
110 William Street
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West Virginia Pulp and Paper Company

Manufacturers of

Supercalendered and Machine

Finished Book and Lithographic Papers

Offset, Envelope and Music Paper, High Grade Coated Book and Label Papers

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Bleached Spruce Sulphite and Soda Pulp

200 Fifth Avenue
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732 Sherman Street
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Whalen Sulphite Pulps

Made from the SITKA SPRUCE of BRITISH COLUMBIA. Noted for Fibre, Color and strength.

SNOWHITE BLEACHED SULPHITE
GLACIER EASY BLEACHING SULPHITE
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New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, July 25, 1923.

The dull days still hold on in the paper market with buyers slow to come in and prices not effecting the general trend of things. Dealers say that the situation is not one where a sharp downward revision would bring in more business, but the whole thing is summed up by the fact that people do not want to buy paper at this time. They are holding off in spite of the most attractive offers that the producers and dealers can offer.

In spite of this situation there is a spirit of optimism pervading the whole trade. Inquiries, it is reported, are coming in with greatly increased volume and everything is looking toward an excellent business in the fall. As has been pointed out frequently in the past few months the paper industry is in a better condition in the United States than it has been basically for a long time.

All that could upset its equilibrium would be some difficulty coming from the outside. For a time it looked as though such difficulties were arising in the shape of the Canadian embargo on shipments of pulpwood to this country and labor difficulties cutting down production in Scandinavia. Now that these problems have been solved, for the time at any rate, there is nothing at all to cause an abnormal condition when consumers do decide to come into the market once more.

There is stiffer competition this summer than there has been for a long time in the European markets. A great deal of both raw and finished products which in the ordinary course of events find their way to this country are now being consumed right in Europe. This has caused a falling off in the quantity of imports, without serious effect to the local market, however, because of a slack demand here at the present time.

Observers of international affairs consider the active competition of Europe with the United States as a sign that the countries across the sea are really getting on their feet again and will be able to buy in greatly increasing quantities from the local markets.

The summer dullness of buying is not really worrying the manufacturers, who say that it is not nearly so bad as it was in other years and that it is giving them an excellent chance to make needed changes in their equipment and otherwise prepare for what they believe is going to be one of the best winters for business that the market has ever seen.

Fine papers have not shown any tendency to freshen up during the week although the demand for them has jogged along at about the same rate. Their is no doubt that this market is a little stale at the present time, but such buying as there is has been fairly even and mills report that they have had enough business to keep them moderately busy.

Although news print showed further signs of falling off during the past fortnight it is still selling better than most of the other grades of paper. Side runs are probably the slowest thing in the news print line, but these have shown some evidences of more life during the past few days.

Tissues are in medium demand for this season of the year with few changes in either direction. Manufacturers report that some of the dealers appear to be laying in stocks although these cases are rare enough to be called exceptional. Certainly there is nothing to show any great excitement among consumers and such buying as is being done is of the hand to mouth variety.

Wrapping papers are also moving slowly. This is the slow season for large department stores and others who are big consumers of this material so that it is natural that there is little demand. On the open market there have been one or two large shipments during the week but contracts are slow to come in.

Coarse papers are not showing any marked signs of change, but dealers do say that there are a great many inquiries for these grades. This, they believe, points to an earlier resumption in normal buying this year than is usual in other years.

Board is still quiet with a little better demand this week than it had last. Manufacturers say that things are progressing to their satisfaction and that they expect the shoe and clothing trades will cause a heavy demand within a short time when they begin to ship for their fall business. It is reported that as soon as the demand becomes a little better there will be a rise in prices.

Mechanical Pulp

Mechanical pulp was a trifle stronger this week with no change in the prices. There is a much firmer undertone in this market and the mills are making inquiries in greater numbers. They show every evidence of getting ready to come in with their heavy buying with a rush and the grinding mills are busy preparing for it.

Chemical Pulp

Chemical pulp has also shaded up a little. Prices are stiffening and in many quarters a good demand is said to be setting in. This is particularly true of the kraft pulp which is unusually active for this season of the year. Dealers are optimistic over the immediate outlook and say that they expect that they will be doing an unprecedented amount of business within a short time.

Old Rope and Bagging

Roofing bagging still continues to be in better demand than any other grade. Scrap is still slow with the mills showing little interest in it. Rope is in the doldrums still with buyers taking up only such quantities as are necessary for their immediate needs.

Rags

There is little call for rags and importations have shown a falling off during the week. Importers say that much of the tonnage that has ordinarily come to this country is being taken up by mills in Europe, but they say that it will begin coming here again just as soon as the demand warrants it. In the domestic rags the demand is said to be a trifle stronger for the lower than for the higher grades.

Waste Paper

Waste paper showed some signs of a return to normal again during the past few days. It is the general opinion that prices are not going to go any lower. Collections have picked up somewhat and now that the dealers have cleared their warehouses pretty well it is inevitable that any adjustment that comes must be an upward one.

Twine

Twine has remained the same during the week. Buying is slow so far as the paper mills are concerned and dealers do not look for any improvement for a few weeks to come.

Protest News Print Rates

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., July 19, 1923.—Alleging that the rate of 33.5 cents per 100 pounds on news print paper from Thorold, Can., to New York city is unjust, the Tribune Company of Chicago, the News Syndicate Company of New York, and the Ontario Paper Company of Thorold, Can., today filed a formal complaint with the Interstate Commerce Commission against the Canadian National Railways, the Delaware, Lackawanna & Western, the Erie, the Pennsylvania and other rail companies, asking for $15,000 reparation on these alleged overcharges.

The proposal of the Canadian National Railways to make changes in its rates on sand and gravel from Niagara Falls, Sherks and Stamford, Ont., to destinations in New York and Pennsylvania, which would result in substantial increases in some instances, was today postponed, pending investigation by the commission until November 17.

Market Quotations

Paper Stock Securities

New York Stock Exchange closing quotations July 24, 1923.

	BID	ASKED
American Writing Paper Company, pref.	13½	14
International Paper Company, com.	35½	35⅝
International Paper Company, pref., stamped	65½	70
Union Bag & Paper Corporation	65½	67½

Paper

F. o. b. Mill.

Ledgers	11.00	@	38.00
Bonds	9.00	@	45.00
Writings—			
Extra Superfine	14.00	@	30.00
Superfine	14.00	@	30.00
Tub Sized	10.00	@	15.00
Engine Sized	8.00	@	11.00
News—f. o. b. Mill—			
Rolls, contract	3.80	@	4.00
Rolls, transit	4.00	@	4.25
Sheets	4.25	@	4.50
Side Runs	3.50	@	4.15
Book, Cased—f. o. b. Mill			
S. & S. C.	7.25	@	9.00
M. F.	7.00	@	8.75
Coated and Enamel	9.00	@	14.00
Lithograph	9.00	@	14.00
Tissues—f. o. b. Mill			
White No. 1	.90	@	1.00
White No. 2	.85	@	.95
Colored	1.15	@	2.00
Anti-Tarnish	1.50	@	2.00
Kraft	.95	@	1.15
Manila	.85	@	.95
Kraft—f. o. b. Mill—			
No. 1 Domestic	7.00	@	7.50
No. 2 Domestic	6.00	@	6.50
Imported	6.50	@	7.00
Screenings	3.25	@	3.50
Manila—			
No. 1 Jute	8.50	@	9.00
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.75	@	5.50
No. 2 Wood	4.00	@	4.50
Butchers	4.25	@	4.75
Fibre Papers—			
No. 1 Fibre	6.00	@	6.25
No. 2 Fibre	5.25	@	5.50
Common Bogus	3.50	@	—
Card Middles	4.00	@	5.00
Boards—per ton—			
News	60.00	@	90.00
Straw	61.00	@	63.00
Chip	57.50	@	60.00
Binders' Boards	75.00	@	80.00
Sgl. Mla. L1. Chip	74.00	@	80.00
Wood Pulp	70.00	@	75.00
Container	70.00	@	80.00
Sulphate Screenings—			
Coarse	.80	@	.90
Refined	1.75	@	2.00
Ground Wood Screenings	20.00	@	25.00
Glassine—			
Bleached, basis 25 lbs.	15.00	@	16.00
Bleached, basis 20 lbs.	17.00	@	18.00
Papermakers' Felts per ton—			
Dry	75.00	@	85.00
Saturated	65.00	@	75.00
Sheathing Paper, per ton—			
Rosin Sized (red and gray, 30 lbs. per 500 sq. ft.)	55.00	@	65.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported	35.00	@	40.00

(F. o. b. Mill)

No. 1 Domestic	35.00	@	40.00

Chemical Pulp

(Ex-Dock, Atlantic Ports.)

Sulphite (Imported)—			
Bleached	4.50	@	5.00
Easy Bleaching	3.50	@	3.75
No. 1 strong unbleached	3.30	@	3.50
No. 2 Strong unbleached	2.85	@	3.10
No. 1 Kraft	3.25	@	3.40
Sulphate—			
Bleached	4.00	@	4.15

(F. o. b. Pulp Mill.)

Sulphite (Domestic)—			
Bleached	4.50	@	5.00
Strong unbl'chd	3.10	@	3.30
Easy Bleaching Sulphite	3.25	@	3.50
News Sulphite	3.00	@	3.25
Mitscherelich	3.20	@	3.30
Kraft (Domestic)	2.10	@	3.30
Soda Bleached	4.25	@	4.35

Domestic Rags

New

Prices to Mill, f. o. b. N. Y.

Shirt Cuttings—			
New White, No. 1	12.00	@	13.00
New White, No. 2	5.75	@	6.50
Silesias, No. 1	7.00	@	7.50
New Unbleached	10.50	@	11.00
Washables	4.50	@	4.75
Fancy	5.50	@	6.00
Cotton—according to Grades—			
Blue Overall	7.25	@	7.50
New Blue	4.50	@	5.50
New Black Soft	4.75	@	5.25
New Light Seconds	2.75	@	3.00
O. D. Khaki Cuttings	4.25	@	4.50
Men's Corduray	3.00	@	3.50
New Canvas	6.50	@	7.00
New Black Mixed, Old	2.60	@	2.80
White, No. 1—			
Repacked	5.50	@	6.00
Miscellaneous	4.75	@	5.25
White, No. 2—			
Repacked	3.25	@	3.75
Miscellaneous	2.75	@	3.00
St. Soiled, White	1.90	@	2.10
Thirds and Blues—			
Repacked	2.35	@	2.60
Miscellaneous	1.90	@	2.15
Black Stockings	2.75	@	3.00
Roofing Rags—			
Cloth Strippings	1.10	@	1.20
No. 1	1.10	@	1.20
No. 2	1.05	@	1.15
No. 3	.80	@	.90
No. 4	.80	@	.90
No. 5A	1.00	@	1.10

Foreign Rags

New Light Silesias	6.00	nominal	
Light Flannelettes	6.75	nominal	
Unbl'chd Cottons	7.50	nominal	
New White Cuttings	9.50	nominal	
New Light Oxfords	6.00	nominal	
New Light Prints	4.50	nominal	
New Mixed Cuttings	2.00	@	2.50
New Dark Cuttings	1.90	@	2.10
No. 1 White Linens	10.00	nominal	
No. 2 White Linens	6.50	nominal	
No. 3 White Linens	5.00	nominal	
No. 4 White Linens	3.50	nominal	
Old Extra Light Prints	2.00	nominal	
Ord. Light Prints	1.75	nominal	
Med. Light Prints	1.50	nominal	
Dutch Blue Cotton	1.85	@	2.15
German Blue Cottons	1.65	nominal	
Ger. Blue Linens	3.50	nominal	
Checks and Blues	1.50	nominal	
Dark Cottons	1.30	@	1.35
Shoppery	1.00	@	1.05
French Blues	1.75	@	2.00

Bagging

Prices to Mill F. o. b. N. Y.

Gunny No. 1—			
Foreign	1.20	@	1.25
Domestic	1.30	@	1.35
Wool, Tares, light	1.30	@	1.40
Wool, Tares, heavy	1.30	@	1.40
Bright Bagging	1.05	@	1.20
Sound Bagging	.85	@	.95
Manila Rope—			
Foreign	5.95	@	6.20
Domestic	6.20	@	6.40
New Bu. Cut	2.15	@	2.25
Hessian Jute Threads—			
Foreign	2.00	@	2.25
Domestic	2.00	@	2.10
Mixed Strings	1.00	@	1.10

Twines

Cotton—(F. o. b. Mill)			
No. 1	.35	@	.37
No. 2	.31	@	.33
No. 3	.37	@	.39
India, No. 6 basis—			
Light	.20	@	.21
Dark	.19	@	.20
B. C., 18 basis	.41	@	.42
A. B. Italian, 18 Basis	.51	@	.61
Finished Jute—			
Dark, 18 basis	.29	@	.30
Light, 18 basis	.26	@	.27
Jute Wrapping, 3-6 Ply—			
No. 1	.23	@	.24
No. 2	.21	@	.22
Tube Rope—			
4-ply and larger	.15	@	.17
Fine Tube Yarn—			
5-ply and larger	.19	@	.21
4-ply	.20	@	.22
3-ply	.20	@	.22
Unfinished India—			
Basis	.16	@	.17
Paper Makers Twine Balls	.13	@	.15
Box Twine, 2-3 ply	.18	@	.19
Jute Rope	.17	@	.20
Amer. Hemp, 6	.33	@	.35
Sisal Hay Rope—			
No. 1 Basis	.15	@	.17
No. 2 Basis	.13	@	.15
Sisal Lath Yarn—			
No. 1	.14	@	.15
No. 2	.11	@	.13
Manila Rope	.18	@	.19

Old Waste Papers

(F. o. b. New York)

Shavings—			
Hard, White, No. 1	3.65	@	3.80
Hard, White, No. 2	2.75	@	2.90
Soft, White, No. 1	2.60	@	2.80
Flat Stock—			
Stitchless	1.60	@	1.70
Over Issue Mag.	1.60	@	1.70
Solid Flat Book	1.55	@	1.65
Crumpled No. 1	1.30	@	1.40
Solid Book Ledger	1.85	@	1.95
Ledger Stock	1.60	@	1.70
New B. B. Chips	.65	@	.75
Manilas—			
New Env. Cut	2.25	@	2.50
New Cut No. 1	1.75	@	2.00
Extra No. 1 old	1.45	@	1.55
Print	.90	@	1.00
Container Board	.75	@	.85
Bogus Wrapper	.70	@	.75
Old Krafts, machine compressed Bales	1.75	@	1.90
News—			
No. 1 White News	2.00	@	2.10
Strictly overissue	1.05	@	1.15
Strictly Folded	.95	@	1.05
No. 1 Mixed Paper	.70	@	.80
Common paper	.50	@	.60

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

F. o. b. Mill

All Rag Bond	35	@	40
No. 1 Rag Bond	30	@	35
No. 2 Rag Bond	18	@	25
Water Marked Sulphite	10	@	14
Sulphite Bond	9	@	12
Sulphite Ledger	11	@	14
Superfine Writing	18	@	24
No. 1 Fine Writing	14	@	22
No. 2 Fine Writing	12	@	20
No. 3 Fine Writing	9	@	12
No. 1 M. F. Book	6½	@	7
No. 1 S. & S. C. Book	7	@	7¼
Coated Book	9	@	10¼
Coated Label	9	@	10
News—Rolls mill	4	@	4½
News—Sheets, mill	4½	@	4¾
No. 1 Manila	4¾	@	6
No. 1 Fibre	5½	@	5¾
No. 2 Manila	4½	@	5
Butchers' Manila	4	@	4½
No. 1 Kraft	7	@	7½
No. 2 Kraft	6½	@	7
Wood Tag Boards	5	@	5½
Screenings	5	@	5½
Boards, per ton—			
Plain Chip	60.00	@	65.00
Solid News	65.00		70.00
Manila Lined Chip	70.00	@	72.50
Container Lined—			
85 Test	75.00	@	80.00
100 Test	80.00	@	85.00

Old Papers

F. o. b. Chicago

Shavings—			
No. 1 Hard White	3.50	@	3.60
No. 1 Soft Shav.	3.25	@	3.35
No. 1 Mixed	1.60	@	1.70
No. 2 Mixed	1.50	@	1.60
White Envel. Cuttings	3.50	@	3.60
Ledgers and writings	1.75	@	1.80
Solid Books	1.75	@	1.80
No. 1 Books, Light	1.50	@	1.55
Blanks	1.85	@	1.90
Ex. No. 1 Manila	1.90	@	1.95
Manila Envelope Cuttings	2.50	@	2.60
No. 1 Manilas	1.50	@	1.60
Folders News (over issue)	1.30	@	1.40
Old Newspaper	1.15	@	1.20
Mixed Papers	.70	@	.75
Straw Clippings	.80	@	.85
Binders Clippings	.80	@	.85
Kraft	2.40	@	2.50
New Kraft Cuts	2.25	@	2.30
Roofing Stock, f. o. b. Chicago, Net Cash—			
No. 1	28.00	@	—
No. 2	26.00	@	—
No. 3	24.00	@	—
No. 4	24.00	@	—

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.10	@	.60
Ledgers	.15	@	.40
Writings—			
Superfine	.15	@	.20
Extra fine	.12	@	.22
Fine	.20	@	.30
Fine, No. 2	.20	@	.25
Fine, No. 3	.15	@	.20
Book, M. F.	.06	@	.11
Book, S. S. & C.	.08	@	.15
Book, Coated	.08	@	.15
Coated Lithograph	.10	@	.15
Label	.08	@	.15
News	.05	@	.07
No. 1 Jute Manila	.12	@	.13
Manila Sul., No. 1	.08	@	.10
Manila No. 2	.07½	@	.08
No. 2 Kraft	—	@	.10
No. 1 Kraft	—	@	.11
Common Bogus	.02½	@	.03
Straw Board	75.00	@	85.00
News Board	65.00	@	70.00
Chip Board	62.50	@	67.00
Wood Pulp Board	1.25	@	1.50

(Carload Lots)

Binder Boards—			
Per ton	75.00	@	80.00
Carload lots	75.00	@	80.00
Tarred Felts—			
Regular	48.00	@	50.00
Slaters	54.00	@	56.00
Best Tarred, 1-ply (per roll)	1.35	@	1.50
Best Tarred, 2-ply (per roll)	1.00	@	1.15
Best Tarred, 3-ply	1.50	@	1.65

Bagging

F. o. b. Phila.

Gunny No. 1—			
Foreign	1.25	@	
Domestic	1.20	@	1.25
Manila Rope	5.00	@	6.25
Sisal Rope	.75	@	.80
Mixed Rope	.75	@	.80
Scrap Burlaps	1.00	@	1.25
Wool Tares, heavy	2.50	@	2.75
Mixed Strings	.75	@	.80
No. 1, New Lt. Burlap	1.75	@	2.00
New Burlap Cuttings	1.75	@	2.10

Old Papers

F. o. b. Phila.

Shavings—			
No. 1, Hard White	4.00	@	4.25
No. 2, Hard White	3.50	@	3.75
No. 1 Soft White	3.50	@	3.75
No. 2 Soft White	1.75	@	2.00

(Continued on page 68)

Imports and Exports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING JULY 21, 1923

SUMMARY

News Print.....3,346 rolls, 344 bls.
Wrapping Paper.....818 bls., 5,499 rolls.
Packing Paper.....1,793 rolls.
Kraft Paper.....325 rolls, 218 bls.
Wall Paper.....1,131 rolls, 483 bls.
Cigarette Paper.....175 cs.
Tissue Paper.....36 cs.
Surface Coated Paper.....216 cs.
Drawing Paper.....27 cs.
Writing Paper.....19 cs.
Filter Paper.....4 cs.
Photo Paper.....9 cs.
Miscellaneous Paper....1,681 rolls, 133 bls., 90 cs.

CIGARETTE PAPER

P. J. Schweitzer, Otterburn, Marseilles, 52 cs.
P. J. Schweitzer, Hektor, Marseilles, 26 cs.
P. J. Schweitzer, Lapland, Antwerp, 26 cs.
Miguel, Costas, & Miguel, Reina Maria Cristina, Barcelona, 10 cs.
Rose & Frank, Indep. Hall, Havre, 18 cs.
Rose & Frank, Olympic, Havre, 19 cs.
Liggett & Myers Tobacco Co., by same, 39 cs.
The Surbrug Co., by same, 15 cs.

WALL PAPER

The Prager Co., Kroonland, Hamburg, 300 rolls.
The Prager Co., Lapland, Antwerp, 831 rolls.
Nat'l City Bank, Pittsburgh, Bremen, 483 bls.

NEWS PRINT

Newark Morning Ledger, Kungsholm, Gothenburg, 338 rolls.
M. O'Meara Co., Seydlitz, Bremen, 43 bls.
Parsons & Whittemore, by same, 129 bls.
Chemical Nat'l Bank, by same, 148 bls.
Chemical Nat'l Bank, by same, 366 rolls.
Parsons & Whittemore, Geo. Washington, Bremen, 39 rolls.
Paper House of Penna, by same, 24 bls.
M. O'Meara Co., by same, 74 rolls.
Corn Exchange Bank, Orca, Hamburg, 353 rolls.
Chemical Nat'l Bank, by same, 964 rolls.
Irving Bank, Columbia Trust Co., United States, Copenhagen, 1,272 rolls.

WRAPPING PAPER

Wilkinson Bros. & Co., Inc., West Eldara, Rotterdam, 313 bls.
Wilkinson Bros. & Co., Inc., by same, 1,285 rolls.
Melby, Kuttroff Co., Inc., Kungsholm, Gothenburg, 35 rolls.
Peoples Trust Co., by same, 4,129 rolls.
C. K. MacAlpine Co., A. Ballin, Hamburg, 505 bls.

PACKING PAPER

Republic Bag & Paper Co., Volendam, Rotterdam, 1,793 rolls.

KRAFT PAPER

M. O'Meara Co., Orca, Hamburg, 325 rolls.
M. O'Meara Co., by same, 164 bls.
Int'l Acceptance Bank, by same, 54 bls.

TISSUE PAPER

Pictorial Review Co., Alleghany, London, 15 cs.
Meadows, Neye & Co., Cedric, Liverpool, 10 cs.
Meagher, Devoy Shipping Co., by same, 11 cs.

SURFACE COATED PAPER

P. C. Zuhlke, Volendam, Rotterdam, 64 cs.
Genaert Co. of America, Lapland, Antwerp, 65 cs.
Globe Shipping Co., Seydlitz, Bremen, 77 cs.

DRAWING PAPER

E. Dietzgen Co., Volendam, Rotterdam, 27 cs.

WRITING PAPER

E. Dietzgen & Co., Patria, Marseilles, 11 cs.
C. Steiner, G. Washington, Bremen, 8 cs.

FILTER PAPER

E. H. Sergeant & Co., Kungsholm, Gothenburg, 4 cs.

PHOTO PAPER

T. F. Wilmot & Co., Alleghany, London, 1 cs.

METAL PAPER

Hensel, Bruckman & Lorbacher, Arca, Hamburg, 9 cs.

PAPER

C. G. Keferstein, Orca, Hamburg, 67 rolls.
Chemical Nat'l Bank, by same, 46 rolls.
Wilkinson Bros. & Co., Inc., by same, 124 bls.
H. Reeve Angel & Co., Inc., Kungsholm, Gothenburg, 5 cs.
M. M. Cohen, by same, 9 bls.
M. O'Meara Co., Seydlitz, Bremen, 60 cs.
Birn & Wachenheim, France, Havre, 25 cs.
Parsons & Whittemore, G. Washington, Bremen, 1,568 rolls.

RAGS, BAGGING, ETC.

E. J. Keller, United States, Copenhagen, 204 bls. rags.
E. J. Keller Co., Inc., V. Florio, Algiers, 187 bls. rags.
E. J. Keller Co., Inc., by same, 66 bls. bagging.
E. J. Keller Co., Inc., L. Luckenbach, Kobe, 340 bls. rags.
E. J. Keller Co., Inc., Zeeland, Antwerp, 113 bls. flax waste.
Castle and Overton, Westerner, Antwerp, 223 bls. bagging.
Castle & Overton, Resolute, Hamburg, 3 cs. wire cloth.
Castle & Overton, Alleghany, Dundee, 198 bls. jute waste.
Equitable Trust Co., Alleghany, London, 64 bls. paper stock.
Brown, Bros. & Co., by same, 584 bls. paper stock.
Equitable Trust Co., Ville d'Djiboute, Marseilles, 144 bls. rags.
Reis & Co., W. Eldara, Rotterdam, 52 bls. cotton waste.
Castle & Overton, Eastern Dawn, Rotterdam, 223 bls. rags.
J. M. Jaffe, Pittsburgh, Bremen, 166 bls. rags.
Jaffe Bros., by same, 201 bls. rags.
New England Waste Co., Hektor, Barcelona, 31 bls. cotton waste.
P. Berlowitz, Volendam, Rotterdam, 102 bls. rags.
Equitable Trust Co., Idaho, Newcastle, 15 bls. new cuttings.
N. Leipziger, Ulna, Havana, 73 bls. waste paper.
N. Leipziger, by same, 11 bls. rags.

OLD ROPE

E. J. Keller Co., Inc., V. Florio, Algiers, 130 bales.
N. Leipziger, Ulna, Havana, 22 bags.
Guaranty Trust Co., Idaho, Newcastle, 110 coils.
Int'l Purchasing Co., Lapland, Antwerp, 50 coils.
Int'l Purchasing Co., by same, 73 bales.

CASEIN

T. M. Duche & Sons, Ensley City, Buenos Aires, 834 bags.

WOOD PULP

M. Gottesman & Co., Inc., Orca, Hamburg, 338 bls. wood pulp.
Tidewater Papermills Co., J. Kielberg, Bridgewater, N. S., 9,350 bls. wood pulp.
Tidewater Papermills Co., Barfond, Pt. au Pic, Que., 9,759 bls. wood pulp.
Castle & Overton, Volendam, Rotterdam, 366 bls. wood pulp.
Castle & Overton, Seydlitz, Bremen, 135 bls. wood pulp.
Bulkley, Dunton & Co., by same, 1,175 bls. sulphite pulp.
Johanesson, Wales & Sparre, Inc., Kungsholm, Gothenburg, 600 bls. bleached sulphite.
Johanesson, Wales & Sparre, Inc., by same, 250 bls. wet sulphite.
Johanesson, Wales & Sparre, Inc., by same, 350 bls. dry soda pulp.
E. M. Sergeant & Co., by same, 700 bls. dry soda pulp.
Scandinavian Pulp Agency, Inc., by same, 127 bls. bleached sulphite.

WOOD FLOUR

A. Kramer & Co., Inc., Orca, Hamburg, 393 bags.

NEW HAVEN IMPORTS

WEEK ENDING JULY 21, 1923

Tidewater Papermills Co., J. Kielberg, Bridgewater, N. S., 1,646 bls. wood pulp.

BALTIMORE IMPORTS

WEEK ENDING JULY 21, 1923

Wood Pulp Trading Co., Ltd., Kermit, Sweden, 3,033 bls. sulphite pulp.
Castle & Overton, Burgerdyk, Rotterdam, 717 bls. wood pulp.

NEW ORLEANS IMPORTS

WEEK ENDING JULY 21, 1923

Castle & Overton, Dorrington Court, Havre, 897 bls. rags.

BOSTON IMPORTS

WEEK ENDING JULY 21, 1923

E. J. Keller Co., Inc., West Haven, Antwerp, 4 bls. Linen rags.
Atterbury Bros., Inc., Ensley City, Buenos Aires, 458 bags Casein.
T. M. Duche & Sons, by same, 417 bags casein.
First Nat'l Bank of Boston, by same, 1,418 bags casein.
First Nat'l Bank of Boston, C. Seigneur, Auckland, 336 bags casein.
R. F. Hammond, Inc., Virginia, Gothenburg, 500 bls., 100 tons wood pulp.

PHILADELPHIA IMPORTS

WEEK ENDING JULY 21, 1923

Wood Pulp Trading Co., Ltd., Laponia, Sweden, 1,372 bls. sulphite pulp.
E. J. Keller Co., Inc., Eisenbach, Bremen, 184 bls. wood pulp.
Castle & Overton, Holstein, Bremen, 135 bls. wood pulp.
Castle & Overton, by same, 825 bls. wood pulp.
Castle & Overton, Mercier, Antwerp, 48 bls. rags.
Castle & Overton, Virginia, Copenhagen, 202 bls. rags.
E. J. Keller Co., Inc., Mercier, Antwerp, 213 bls. rags.
E. J. Keller Co., Inc., Eisenbach, Bremen, 151 bls. rags.
E. J. Keller Co., Inc., M. Exchange, Manchester, 146 bls. bagging.
Dill & Collins, Alleghany, London, 277 bls. waste paper.
American Wood Pulp Corp., Ind. Hall, Dunkirk, 212 bls. rags.
Kenzie & Foster, by same, 215 bls. rags.
New England Waste Co., Hektor, Marseilles, 427 bls. cotton waste.
F. H. Garner, by same, 28 bls. cotton waste.
Castle & Overton, Hektor, Barcelona, 130 bls. rags.

News of the Boston Trade

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., July 23, 1923.—In boards the situation here is reported as satisfactory. Business is running well, or at least as well as can be expected at this season. Big dealers do not question for a moment but that business will be excellent by September. They are content with present trade.

Prices are low on old papers. Over production is said by some of the large dealers to be the explanation. Profits are narrow and overhead is increasingly large. Few, in fact, report any profitable business—consistently so—since 1920. There have been a few spurts of short duration, the best being about 90 days early this year. Another spurt is looked for shortly. Conditions are improving even now. The Holyoke strike is felt rather seriously by the old paper dealers. They hope for its settlement within a short time.

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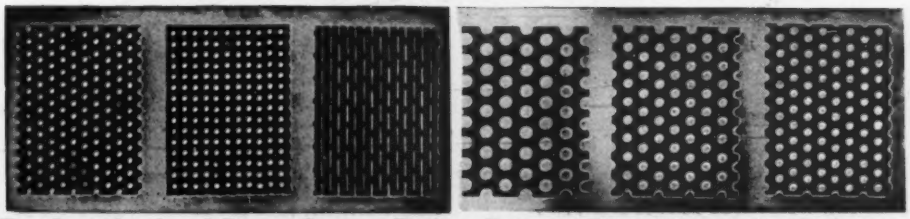

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Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, JULY 25, 1923.

The chemical market has been weak during the past few days. Dealers were not asking about prices, but about where they could get orders. All prices were rather unsteady and ruled in the main by the size of the order that seemed to be in the offing. All dealers have been cutting their commissions to the bone in the hope of enticing buyers. The feeling throughout the market now, however, is that further reductions are not going to create a demand which is non-existent and sellers have the tendency to sit still and wait for the revival of trading in the fall.

BLEACHING POWDER.—While the demand for bleach in the open market has been extremely spotty prices have remained just about the same except in cases where over-anxious sellers have made radical slashes to get a quick turnover. The quotation is still at from 1.60 to 1.65 cents a pound although it is possible to get it occasionally at lower prices.

BLANC FIXE.—There has not been much call for blanc fixe during the past week and dealers are sitting tight, holding the price at approximately the same point it has been all summer and waiting for better business at the end of the summer. The price is still $50 to $55 a ton on the pulp grades and $80 to $85 on dry.

CHINA CLAY.—Paper mills did not seem to be much interested in china clay during the last few days, but the price has remained the same in spite of the poor demand. Few contracts were coming in and importers say that they do not expect any in large quantities for a few weeks yet. Domestic grades are quoted at from $14 to $17 a ton and the imported at $15 to $23.

CAUSTIC SODA.—The whole family to which caustic belongs has not proved particularly interesting to buyers for some time now and the past week is no exception to this rule. Paper mills frankly say that they are not laying in any stocks ahead and their purchasing agents say that they have orders to buy only what they absolutely need. The price on a flat basis is said to be at about 3.17 to 3.20 cents a pound although this basis is more or less nominal and it can be purchased lower in large quantities.

CASEIN.—Casein has not picked up in the least during the current week and dealers say that they do not expect it to do so until the latter part of next month when the paper manufacturers have to come into the market strongly once more to take care of their fall production. It is quoted at about 15.50 to 17 cents a pound.

CHLORINE.—Liquid chlorine is also moving very slowly. There has been little demand for it on spot owing to the hand to mouth buying policy of the paper mills. There are not many contracts being filled but manufacturers do report that they are receiving many inquiries which indicate that the mills are going to do some heavy buying when they do enter the market again in the fall. In tanks it is quoted at from 4.20 to 4.40 cents a pound although, like other chemicals, it is said to be possible to buy it a little under this when a large shipment is desired.

ROSIN.—Naval stores along with everything else in the raw material market are suffering from the summer lassitude, but dealers do not seem to be particularly worried and are inclined to wait for a more promising market before hurrying after business. The price on the grade of interest to papermakers remains at about 6.10 to 6.15 cents a pound.

SALTCAKE.—The poor demand has brought about a slight falling off in the price of saltcake during the past week. It is now quoted at about $23 to $24 a ton.

SODA ASH.—Little movement of soda ash in the open market has occurred during the past week. The price is still 1.50 to 2.00 cents a pound.

SULPHATE OF ALUMINA.—Alumina sulphate has been in poor demand and dealers say that it is moving very slowly. The price has shown a slight falling off and is now quoted at 2.05 to 2.25 on the iron free grade and 1.25 to 1.35 on the commercial.

Market Quotations

(*Continued from page 65*)

No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.25	@	1.50
Solid Ledger Stock	2.50	@	2.75
Writing Paper	2.25	@	2.50
No. 1 Books, heavy	2.00	@	2.25
No. 2 Books, light	1.40	@	1.50
No. 1 New Manila	2.75	@	3.00
No. 1 Old Manila	1.50	@	1.75
Container Manila	1.35	@	1.50
Old Kraft	2.25	@	2.50
Overissue News	1.50	@	1.60
Old Newspaper	1.00	@	1.50
No. 1 Mixer Paper	1.00	@	1.10
Common Paper	.80	@	.90
Straw Board, Chip	1.00	@	1.10
Binders Bd., Chip	1.00	@	1.10

Domestic Rags—New.
Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.12	@	.12¼
New White, No. 2	.07	@	
Silicias, No. 1	.07¼	@	.07½
New unbleached	.10	@	.11
Washables	.04½	@	
Fancy	.05¼	@	.05½
Cottons—according to grades—			
Blue Overall	.05½	@	.05¾
New Blue	.02¾	@	.02¼
New Black Soft	.06¼	@	.06½
New Light Seconds	.02¾	@	.02¼
Khaki Cuttings	.11	@	.04½
Corduroy	.03½	@	.04
New Canvass	.08¼	@	.08¾
New Black Mixed	.04	@	
Old White, No. 1—			
Repacked	.06	@	.06½
Miscellaneous	.04½	@	.04¾
White, No. 2—			
Repacked	.03½	@	.04
Miscellaneous	.03	@	.03¼
Thirds and Blues—			
Repacked	2.00	@	2.25
Miscellaneous	1.85	@	1.90
Black Stockings	2.75	@	3.00
Roofing Stock—			
No. 1	1.35	@	1.40
No. 2	1.25	@	1.30
No. 3	1.15	@	1.20
No. 4	1.15	@	1.20
No. 5A	1.10	@	
B	nominal		
C	nominal		

BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.09½	@	.63
Ledgers	.09½	@	.55
Writings	.08½	@	.42
Superfine	.16	@	.26
Fine	.15	@	.18
Books, S. & S. C.	.07¼	@	.12
Books, M. F.	.06¾	@	.09½
Books, coated	.09	@	.15
Label	.09	@	.13
News, sheets	4.75	@	6.00
News, rolls	4.50	@	5.75
Manilas—			
No. 1 Manila	$6.00	@	7.00
No. 1 Fiber	.06½	@	.07
No. 1 Jute	9.00	@	10.50
Kraft Wrapping	.07	@	
Common Bogus	3.50	@	3.85

Boards

(Per Ton Destination)

Chip	$57.50	@	—
News, Vat Lined	57.50	@	60.00
Wood, Vat Lined	67.50	@	—
Filled News Board	57.50	@	60.00
Solid News Board	67.00	@	70.00
S. Manila Chip	70.00	@	77.50
Pat. Coated	87.50	@	95.00

Old Papers

Shavings—			
No. 1 Hard White	4.00	@	4.15
No. 1 Soft White	3.25	@	3.35
No. 1 Mixed	.90	@	1.00
Ledgers & Writing	2.00	@	2.25
Solid Books	1.75	@	
Blanks	1.25	@	1.50
No. 2 Light Books	1.50	@	
Folded News, overissues	1.00	@	
Gunny Bagging	1.10	@	1.15
Manila Rope	5.00	@	5.25
Common Paper	.70	@	.80
Common Mixed	.70	@	.75
Old News	.90	@	
Old Kraft	1.75	@	2.00
No. 1 Scrap Burlap	.90	@	1.00
No. 2 Roofing Bagging	.60	@	.70
Mixed Strings, 1 cent per lb.			

TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11	@	.12½
Light tinted	.12	@	.13½
Dark Tinted	.13½	@	.15
Ledgers (sulphite)	—	@	.13
Writing	.09½	@	.12
News, f. o. b. Mills—			
Rolls (carloads)	3.75	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	9.00	@	—
No. 2 M. F. (carloads)	8.00	@	—
No. 3 M. F. (carloads)	7.50	@	—
No. 1 S. C. (carloads)	9.50	@	—
No. 2 S. C. (carloads)	8.50	@	—
No. 1 Coated and litho.	14.00	@	—
No. 2 Coated and litho	13.00	@	—
No. 3 Coated and litho.	12.25	@	—
Coated and litho., colored	14.25	@	—
Wrapping—			
Grey	5.00	@	—
White Wrap	5.75	@	—
"B" Manila	6.00	@	—
No. 1 Manila	7.25	@	—
Fiber	7.25	@	—
Kraft, M. F.	8.00	@	—
M. G.	8.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	$36.00	@	38.00
Sulphite easy bleaching	60.00	@	65.00
Sulphite news grade	50.00	@	55.00
Sulphite, bleached	90.00	@	92.50
Sulphate	70.00	@	72.50

Old Waste Papers

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.65	@	—
Soft White Book shavings	3.30	@	—
White Blk. News	1.80	@	—
Book and Ledger—			
Flat Magazine and Book Stock(old)	1.30	@	—
Light and Crumpled Book Stock	1.15	@	—
Ledgers and Writings	1.85	@	—
Solid Ledgers	2.00	@	—
Manilas—			
New Manila Cut	1.90	@	—
Printed Manilas	1.55	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	1.00	@	—
Folded News	1.00	@	—
No. 1 Mixed Papers	.85	@	—

Domestic Rags—
Price to mills, f. o. b. Toronto Per lb.

No. 1 White shirt cuttings	12	@	
No. 2 White shirt cuttings	.06	@	—
Fancy shirt cuttings	.05½	@	.06
No. 1 Old Whites	.04½	@	—
Third and blues	.02¼	@	.02½

Per cwt

Black stockings	.03	@	—
Roofing stock:			
No. 1	—	@	—
No. 2	—	@	—
Roofing stock:			
Manila rope	.05½	@	.06
No. 2	1.55	@	—
Gunny bagging	.01½	@	—